



Heritage Welsh: a study of heritage language as the outcome of minority language acquisition and bilingualism

Citation

Boon, Erin Diane. 2014. Heritage Welsh: a study of heritage language as the outcome of minority language acquisition and bilingualism. Doctoral dissertation, Harvard University.

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Heritage Welsh:
a study of heritage language as the outcome
of minority language acquisition and bilingualism

A dissertation presented by
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to
The Department of Celtic Languages and Literatures

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of
Celtic Languages and Literatures

Harvard University
Cambridge, Massachusetts

April 2014

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Abstract

This dissertation analyzes the language used by 20 adult heritage Welsh speakers now living in London, i.e., bilinguals who shifted to English dominance in childhood, and whose Welsh proficiencies now show divergences from baseline norms as a result of incomplete acquisition and attrition. The grammars of these heavily imbalanced bilinguals are compared with baseline informants (20 Welsh-dominant controls) on a narrative elicitation task, in which the informants tell the story of a children's wordless picture book (*Frog, Where Are You?* by Mercer Mayer). The samples collected for this project (Appendix II.1) constitute the first corpus of heritage Welsh.

Particular attention is paid to indicators of fluency (mean length of utterance, frequency of embedded clauses, speech rate, vocabulary recall delay, retraces, and retraces with correction), simplification in the system of initial consonant mutation, reanalysis of tense and aspect in verb construction, any non-native agreement morphology, and the availability of a null subject in the heritage Welsh samples. The heritage Welsh samples are examined for evidence that divergence in the heritage grammar results more from a trend toward simplification and access to Universal Grammar than influence from the speaker's dominant language, English.

Part I investigates topics which are pertinent to the study of heritage language—its definition and connection to the Critical Period Hypothesis, the distinction between incomplete language acquisition and attrition, and theories of bilingual language systems. Part II details the analysis of the heritage Welsh samples in particular. The concluding remarks broaden the focus to the minority status of the baseline language in Wales, presenting the inevitability of heritage speakers there as well if childhood exposure to Welsh does not reach the critical level necessary for full native proficiency and if the language is not maintained in adulthood. This project introduces the terms “heritage Welsh” and “heritage speaker” into Welsh linguistics, and presents a framework with which to discuss this previously neglected category of bilinguals.

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Acknowledgments

I would like to thank all of the individuals who contributed to the completion of this dissertation. I am especially grateful for all of the support and guidance I have received from my advising committee, Professors Catherine McKenna, Maria Polinsky, and Sìm Innes, whose patience and understanding have allowed me to pursue new academic interests during the past six years. For that indulgence I will always be grateful, as the work that has gone into this project has been one of the most rewarding intellectual experiences of my life.

Perhaps most importantly, I extend my sincerest thanks to the Welsh speakers who participated in the compilation of the heritage Welsh corpus. Without their willingness to be interviewed by this foreign graduate student and complete stranger, this dissertation would certainly never have been written. I hope the results of the project are worthy of the trust they have placed in me.

I must also acknowledge the particular help I received from Georgia Henley, my dear friend and sometimes research assistant, whom, I believe, I still owe a few favors. The camaraderie and support I've received from my colleagues in the Celtic Department, particularly that of Kasi Conley and Sarah Zeiser, will also surely be missed once I've moved on to my next endeavors. Last, but not least, endless thanks go to my partner Devin, who already knows how grateful I am.

Introduction

This dissertation is a study of the grammatical consequences of language shift in the language proficiency of Welsh speakers in London. In a sense, Welsh in London is a minority language twice over, as an immigrant language which is also a minority language in the home country. A description of the language proficiency which is exemplified by these speakers—i.e., heritage Welsh—is the principal object of this project. Heritage Welsh is not, however, a phenomenon which is restricted to expatriate communities. Language shift has dominated the history of Welsh in Wales for the past century or more, and consequently, heritage speakers of Welsh exist there as well. I return to the implications of recognizing heritage Welsh as a distinct linguistic profile in Wales in the Conclusions of this dissertation.

The field of heritage language research has been growing for the past twenty years, but this project is the first to apply its theoretical apparatus in a study of Welsh. As a starting definition, heritage language is, in the narrow sense, the language proficiency possessed by speakers who were raised with the language in the home but who subsequently became dominant in another language. This describes a common scenario in the Welsh speaker community, in which bilingualism is more often imbalanced than balanced, and overwhelmingly in favor of English. In particular, any outmigration from Wales into England leads to an inevitable population of heritage Welsh speakers living outside of the language community. The research into their retained language abilities which is presented in this dissertation fills an egregious gap in our understanding of the state of Welsh today, and the literature about heritage speakers of other languages provides a reference and starting point for my analysis of grammatical divergences between heritage Welsh speakers and speakers of the baseline, or standard Welsh.

Defining the term “heritage language” is the focus of Chapter 1, though describing heritage language phenomenon is the subject of all of Part I. Chapter 1 reviews the heritage speaker profile as it has been established by linguists working with other languages. The particular domains of the grammar which are more or less likely to be divergent from the baseline in those languages are predicted to be likewise in heritage Welsh. The heritage Welsh speaker is also characterized within that framework, with reference not only to the expected grammar but also to its attendant reduction in speaker confidence. The heritage speaker profile is a description not only of language abilities but also of language attitudes.

Chapter 2 investigates the validity of the Critical Period Hypothesis and its relevance to the study of a language that was only incompletely acquired during childhood or which suffered attrition from full proficiency thereafter. This theoretical assumption privileges the child mind as a naturally superior language acquiring instrument, and thus necessarily limits the adult mind’s capacity for language acquisition. It follows from this presupposition, as has been argued by Montrul (2008), that the critical period for language acquisition, i.e., childhood, is also particularly vulnerable to language attrition should the acquisition process be restricted or cease altogether. The results of this specifically childhood-based language exposure are precisely what heritage language is, therefore an understanding of the arguments which have been made in favor, and against, the validity of the critical period as a useful construct is also an element of a complete description of heritage language.

Chapter 3 discusses the two processes which potentially contribute to the adult heritage, as opposed to fully proficient, grammar. Distinguishing incomplete first language acquisition from first language attrition emerges as both a problematic as well as, perhaps, futile endeavor in the heritage language context. Comparisons are made with attrition in the language proficiencies of aging monolinguals and with incomplete second language acquisition, but the heritage language scenario may prove to be too complicated to tease apart these otherwise distinctive

processes. This follows closely on the discussion of the previous chapter and the indeterminate nature of language acquisition in childhood, its clear development, the attainment of milestones, or successful and fully established proficiency.

Chapter 4 describes bilingualism as a cognitive state, and reviews the theoretical literature on the arrangement of languages in the bilingual mind. The potential for transfer or interference from one language to another is particularly pertinent to imbalanced bilingualism, and therefore also to heritage language. The linguistic system of the bilingual is argued to be demonstrably different from that of the monolingual, and the manifestations of that difference are more than the ostensible confusion of her two languages. The general cognitive processing advantages which seem to result from lifelong bilingualism are also investigated in some detail. The bilingual continuum as a model representing the range of speaker proficiencies very clearly includes those of the heritage speaker, who are reiterated to be bilinguals as well. In this light, the divergent grammar of the heritage Welsh speaker may begin to be looked upon more favorably by the language community, a topic to which I return in the Conclusions.

Having once established the object of study in the chapters of Part I, Part II analyzes the particular characteristics of heritage Welsh. The data under analysis are a corpus of heritage Welsh speaker transcriptions of the *Frog, Where Are You?* narrative task. Twenty native and fully proficient speaker controls also performed the task and are used as the baseline comparison. The Introduction to Part II fully explains the nature of my fieldwork and its resulting language corpus. The twenty interviews with heritage Welsh speakers—recorded, transcribed, glossed, and translated—comprise the first collection of heritage Welsh speaker data to date. (Appendix II.1) The corpus has also been made available online for further research. (Boon 2014)

Chapter 5 problematizes the notion of fluency and offers a complex of metrics as a proxy for this otherwise vague and impressionistic concept. The “fluency” of the speaker is often the

first point of judgment in lay descriptions of speaker abilities, but it is far from a universally understood term. The ease of speech flow, rather than grammatical accuracy or breadth of vocabulary, is determined to be the critical factor in the impression of fluency. Valid component measurements of the speech flow which can stand in for “fluency” are argued to be mean length of utterance (words per utterance unit), speech rate (words per minute), frequency of embedded structure, frequency of vocabulary recall delay, frequency of retracing (or “do-overs”), and frequency of retracing with correction. The fluency of the heritage Welsh speakers is then described in terms of these measurements and correlations with language use patterns are analyzed for potential effects. Regular conversational use, exposure to Welsh language media, the amount of formal Welsh instruction obtained in childhood, and the age at language shift are discussed as they relate to those fluency measures.

Chapter 6 investigates the manifestation of the Welsh system of initial consonant mutation (ICM) in its heritage form. The three types of mutation (soft mutation, nasal mutation, and aspirate mutation) are described as they appear in the baseline samples, as well as how they are expected to appear according to formal grammatical texts, and their contexts are reviewed. Divergences from the baseline in the heritage ICM system abound, but the system is certainly not lost altogether, nor do the maintained mutation effects appear to be random. Disambiguation and salience emerge as the determining factors of whether or not a mutation will occur. Grammatical gender, homophonous lexemes, and the personal pronominal adjectives are of particular interest as triggers of mutation, but each context which occurs in the samples is thoroughly reviewed.

Verb formation and agreement patterns are the foci of Chapter 7. Synthetic verb forms are found to occur far less frequently in heritage Welsh than in baseline Welsh. The analytic, *bod*-periphrastic option predominates. I argue that the reduced processing load of the periphrastic forms is the likely reason for this asymmetry between the speaker populations, though the possible influence of English constituent order (SVO as opposed to VSO) is also discussed.

Agreement patterns are found to be quite native-like, on the whole, though a handful of divergences are investigated individually. Yet, despite the conformity in agreement morphology, it is in the expression of verbal formation that the heritage speakers most obviously evince their divergent grammars. The reduction of tense inventory is discussed as a reanalysis of aspect markers as tense markers, the overwhelming preference for the present tense is interpreted as a loss of tense options, and any occurrence of a null subject is regarded to be more likely the result of phonetic convenience than a sign of the full availability of the null subject option.

A thorough analysis of heritage Welsh as a potential outcome of childhood bilingual language acquisition in a minority language situation is a necessary and complementary step in the study of the survival of Welsh. Generational and regional differences are already a focus of Welsh linguistics, but the real grammatical outcome of language shift has, inexplicably, attracted little attention until now. The divergences between baseline and heritage Welsh are not only informative of these post-shift grammars in particular, but may also foreshadow the simplification which will occur in the baseline language if exposure is reduced below sufficient levels on the community scale. This is a legitimate concern in Wales, despite recent gains by the language maintenance movement. Welsh does persist as a language today despite the historical persecution of its speakers, but it also remains under the looming shadow of English and the lure of its global currency. The reality is that Wales is a bilingual country, in which even severely imbalanced bilinguals must be recognized as Welsh speakers if an evaluation of Welsh language ability in the country has any productive purpose. Fortunately, the advantages of the heritage language framework go beyond its crosslinguistic insight into reanalysis and simplification in incomplete grammars. The terminology itself fills a gap in the dialogue of the Welsh language revival and maintenance movement in Wales, where an accurate account of *all* language abilities is a continuing priority. In the Conclusions, I return to the importance of the inclusion of heritage speakers as members of the Welsh language community.

Chapter 1. Defining Heritage Language

Heritage Welsh speakers may be the Welsh living abroad, those who grew up in English dominant areas of Wales, or the generations in Wales that lost much of their proficiency due to the official supremacy of the English language in the twentieth century. (cf. Davies 2000)

Heritage speakers may go uncounted by the census and unnoticed by language activists, lost somewhere between the Anglo-Welsh and the Cymry Cymraeg¹. They can speak the language to some degree but do not confidently think of themselves *as* speakers of the language. They know Welsh language culture but do not feel that they belong to it. They both are, and are not, native speakers. This quandary is not unique to the Welsh language, but neither is there a single “heritage speaker” profile. We will see that the category of speakers we consider “heritage language” speakers is most accurately described as a continuum, with varied proficiencies and a range of cultural ties to the language. Though the term “heritage” carries a connotation beyond its technical use in this dissertation, in this context it denotes that the speaker has some proficiency in the language due to her personal history, a childhood during which she was exposed to Welsh outside of school or an otherwise formal language learning environment.² In the following pages I hope to take full advantage of the body of international research into this HL phenomenon in profiling and describing this neglected category of Welsh speakers.

Joshua Fishman’s (2001) definition of heritage language is the probably the broadest in the field. He describes three groups which can be considered heritage languages in the American

¹ i.e., fluent native Welsh speakers in Wales

² This dissertation is not concerned with the language outcomes of traditional classroom-based language learners, who in Wales may be children studying Welsh in the school system as part of the mandatory curriculum. Children who only begin to acquire Welsh in the school system are not here considered to be heritage speakers in the narrow sense, though an argument can be made that, in some cases, these children consider Welsh their heritage language in the broadest sense, as a cultural symbol.

context—indigenous heritage languages, colonial heritage languages, and immigrant heritage languages. By “indigenous heritage languages” Fishman is referring to indigenous languages of the Americas which were spoken in North America before the arrival of foreign colonizers. Each of these languages has an intimate connection with its respective territory as the sole region in which it is spoken. To lose ground there is to move toward language extinction. “Colonial heritage languages” in North America are the languages of colonizers predating the American Revolution, including Dutch, French, Spanish, German, and even Welsh. (Fishman 2001, 83-84) These languages have roots in the early phases of new world development but rely now on reinforcement from immigrants as they have long since lost their status to English.³ The presence of actual speakers of these first two categories of heritage languages is irrelevant, in his definition, to their inclusion as heritage languages. A cultural or historical connection with the community is sufficient.

In the US context, the most common of Fishman’s heritage languages are “immigrant heritage languages.” These are the heritage languages which are given the most attention in the literature and which will be described at length in this chapter. Importantly, like the colonial heritage languages, these languages are generally thriving dominant languages elsewhere, though they are minority languages in their heritage form. They do not, therefore, exist under the threat of obsolescence as do the indigenous heritage languages. That is not to say that they are not pressured by the dominance of English in the US, however. Not only have immigrant heritage languages been neglected as a national resource in international business and politics, (Peyton et al. 2001; Polinsky and Kagan 2007, 389-390) but have also suffered from a pervasive American

³ Fishman (2001, 84) points out one notable exception to this pattern, Pennsylvanian German, which has remained the language of a particular community only through their “jealously guarded physical and cultural distance from the American mainstream.” This example is proof of the extreme measures a group of people would have to go to in order to maintain a minority language in the face of English encroachment. The circumstances of the survival of Pennsylvanian German speak to the infeasibility of minority language maintenance in the US, rather than its possibility.

mentality intent on obliterating all but English as the national language. Not only do immigrants feel an implicit pressure to assimilate to American culture, but occasionally a social undercurrent of anxiety and xenophobia manifests as legislation against foreign languages. In 1919, a time of strong anti-German sentiment in the US, the state of Nebraska enacted a law which restricted foreign language education. One of Nebraska's defending arguments during the Supreme Court case (which overturned the law) was that early exposure to a foreign language was injurious to national loyalty. (*Meyer v. Nebraska*, 262 U.S. 390 (1923)) This sort of paranoia about bilingualism is only compounded in the immigrant context, in which the language in question is actually the first language. (Fishman 2001, 82-87)

For our purposes Fishman's definition is too inclusive (and too American), but the parallels with the Welsh language in Wales cut across each of Fishman's three categories. Historically, this Celtic language is indigenous not only to the area of Britain known today as Wales, but in the sixth century was also spoken in the West Midlands of England, northward through present-day Lancashire, Yorkshire, and into the lowlands of Scotland. (Jones 1993, 536) Like Fishman's indigenous languages of America, to lose ground in Wales is truly to inch closer toward the extinction of the language as a whole. In this way, Welsh fits into Fishman's first heritage language category—a minority language even in its native nation. From this perspective, not only may fully proficient native speakers of Welsh in Wales be speaking a heritage language, but so also may monolingual English speakers in Wales consider Welsh to be their heritage language. It is a heritage language on the scale of the community as a whole.

Despite any perceived cultural bilingualism, the de facto status of English as the culturally dominant language in Wales throughout the twentieth century has produced a state in which there are far more bilinguals who are imbalanced in favor of English than in Welsh. Perhaps some have had lifelong exposure to Welsh from their family or local community, possibly even including formal lessons in school or even some amount of education through the

medium of Welsh, but are nevertheless dominant in English. These speakers are very clearly heritage Welsh speakers. The 2011 Census for England and Wales asked Welsh residents to state their Welsh language abilities under three categories—‘can understand spoken Welsh only,’ ‘can speak Welsh, and ‘can speak, read, and write Welsh.’ Those who self-identified in the third category are the most likely to be balanced bilinguals or more proficient in Welsh than English. The first two categories, however, very likely incorporate heritage speakers of differing proficiency.⁴ 24.3% of Welsh residents identified themselves by one of these two criteria (5.3% can understand spoken Welsh only; 19.0% can speak Welsh). (Office for National Statistics 2012) Although the Census categories are clearly too imprecise to accurately calculate heritage speaker figures in Wales, especially considering the possibility that lower proficiency heritage speakers very likely report no Welsh abilities at all, these data do very strongly hint toward the presence of heritage speakers in Wales. As a minority language in a bilingual country, its speakers will span the full range of proficiencies, which inevitably includes those of the heritage speaker.

My own fieldwork (Part II of this dissertation) will focus on Fishman’s third category of heritage speaker—the immigrant heritage language. A well-known complaint from the Welsh language lobby in the UK is that the Census does not specifically ask about Welsh language proficiency on surveys distributed outside of Wales. The questionnaire does, however, allow the respondent to report her primary language if that language is not English, and during the 2011 Census over 8,000 residents of England did, indeed, report that Welsh was their primary language. (Office for National Statistics 2013a). The number of other Welsh speakers living in England, e.g., heritage speakers, is likely to be much larger. That Census also found that over

⁴ While it is entirely possible for a bilingual to be literate in only their weaker spoken language (likely because of the cultural dominance of that language), the census respondents who did self-identify in the comprehend, speak, read, and write category are the *least* likely to be heritage speakers in the narrow sense. Those who replied that they can speak but not read or write Welsh can not be differentiated as heritage or fully proficient by these data.

290,000 residents of England self-identified as ‘Welsh’ when asked about their national identity, and a further nearly 57,000 self-identified as ‘Welsh and British.’ (Office for National Statistics 2013b) There are natural reasons for Welsh speakers to move around within the UK, one being that it is, in fact, a united state. But if ‘Welsh’ is how an individual self-identifies, then he is certainly a *cultural* immigrant in England, and if Welsh is a language he speaks, then it is an immigrant heritage language in that case as well. For these speakers, the circumstances governing the survival of their Welsh abilities will parallel those of other immigrant languages. Fishman’s (2001) definition of the immigrant heritage language clearly applies to our Welsh speakers in this situation.

Another early definition of the heritage speaker comes from the first full volume dedicated to heritage language education, *Teaching Heritage Language Learners: Voices from the Classroom* (Webb and Miller 2000). Here a heritage language learner is defined as

“..someone who has had exposure to a non-English language outside the formal education system. It most often refers to someone with a home background in the language, but may refer to anyone who has had in-depth exposure to another language. Other terms used to describe this population include “native speaker”, “bilingual” and “home background.” While these terms are often used interchangeably, they can have very different interpretations.” (Draper and Hicks 2000, 19)

This definition opens the term “heritage speaker” to those who have been exposed to the language outside of the home, rather than restricting the label to its connotation of *family* heritage. In the Welsh context, this would allow for the children of English parents who moved into Wales to be considered heritage Welsh speakers if they grew up with Welsh spoken around them and/or took Welsh classes in school, a point with which I find no argument. There need not be a genetic connection to the language community for someone to claim that language as a heritage language.

Even more important than these formal definitions, perhaps, is the acknowledgment that to identify as a heritage speaker is a deeply personal and individual self-labeling, connected to

one's own life experiences and perceptions of what makes oneself unique within the larger community. It is an identification that both indicates membership within a minority population, and therefore inclusion in a selective group, but also sets the individual apart from the greater, dominant-language community, in effect excluding oneself from the average majority. Both sides of this label, the inclusion and exclusion aspects, are something that must be selected by the heritage speaker herself. (Carreira 2004) The term "heritage speaker" does not yet have currency in the Welsh language community, but in the course of recruiting heritage speaker participants for this project, I introduced a number of speakers to the heritage language profile and found that the importance of self-labeling was just as important in that context as it would have been had "heritage language" already been a familiar and recognized concept.

The Draper and Hicks definition also draws attention to some troublesome terminology—"native speaker" and "bilingual." These are often very loaded words, to linguists as well as laymen, and must not be used casually. The term "native" does not exclusively designate a first language by order of acquisition, nor does "bilingual" entail a balanced proficiency. When intended synonymously with first language, a speaker can have more than one native language, in which case the key characteristic is only that it was acquired naturally, without formal instruction, beginning as a small child. The speaker will then have an intuition and implicit knowledge of the language that distinguishes her from a second language learner who studies the language consciously and through formal lessons. (Gass and Selinker 2008, 8-15) But native language may sometimes also refer to a language of cultural significance to the individual, or a heritage language in the broadest sense, in which case no real proficiency is necessarily implied. (Draper and Hicks 2000)

"Bilingual" can refer to a speaker who acquired two (or more) languages from birth, as well as to the second or foreign language learner. The term is actually quite broad and includes all the speakers who fall on the "bilingual continuum," a framework developed to account for the

vast range of speaker profiles and abilities contained under the bilingual label. (Silva-Corvalán 1991; Valdés 2001, 41) The idea of the perfectly balanced bilingual is purely hypothetical and empirically non-existent. There will always be a slight imbalance in the language proficiencies of any individual speaker, but she is “bilingual” nonetheless. The bilingual continuum covers a range of fluencies that extend from native-like proficiency to elementary abilities only, but the concept of bilingualism as a possible mental state is an incredibly complicated one and will be examined in great detail in Chapter 4 of this dissertation.

Further complicating the immediate subject of this study—heritage Welsh—is the minority status of Welsh in Wales. To be a speaker of a language like Welsh, such a politically and culturally loaded issue in itself, introduces even more subtle complications into the vagaries of the terms discussed above.⁵ Many people who consider themselves native Welsh speakers may only have one parent who spoke Welsh at home, for example. Perhaps they began to acquire Welsh first but gradually became dominant in English sometime around middle childhood, though they still acquired Welsh naturally during their childhood also. These speakers may consider themselves “native” and “bilingual” speakers, despite being somewhat more proficient in English and never using that “native” Welsh language with one of their parents. Their proximity to full proficiency will, then, be the only determining factor of their description as heritage speakers rather than fully proficient speakers, regardless of any similarities across their personal language histories.⁶ Disentangling fully proficient native speakers from heritage

⁵ Whether the weight of this significance is something under which a language can survive long is debatable. The strongest speakers of the language, those for whom Welsh is just the natural default choice for communication, should not feel the responsibility of maintaining a minority language—as soon as they do, the language is in danger. To remove the casual comfort of defaulting to Welsh and making it a conscious choice in every statement is a stress that speakers may begin to avoid.

⁶ There are many facets to the Welsh language in Wales situation. Though regions may be more or less dominated by English, with those of higher Welsh speaking proportions considered heartland areas, the two languages exist in parallel throughout the country. An individual

speakers in *Wales* is a far more complicated subject than what I am attempting in this dissertation. I avoid the issue by interviewing heritage Welsh speakers in England only, the methodology of which will be presented in the introduction to Part II.

During the course of my fieldwork, I encountered many heritage speakers who had trouble answering when I asked what was their first or native language. The reason seemed to be their lack of a sense of ownership over Welsh, their heritage language. It may have been their “first” language acquired according to chronological order, though not their “first” language by rank of proficiency and comfort. Does a semi-proficient heritage speaker of Welsh have the right to call herself a “native” speaker of Welsh? As I have said, the distinction is one which should be left to the speaker to decide. These are labels of self-identification and are more inclusive than at first they seem. “Heritage” as a label does not preclude “bilingual” or “native,” rather, the three terms are complementary.

While it is surprising that it has only been relatively recently that heritage speakers, particularly in the classroom setting, have been given special attention as a different category of speaker/learner, with distinct advantages and particular needs, the field has been increasingly gaining ground. For our purposes, Valdés’ (2001) frequently cited definition is most apt. Hers is directed more at explaining the resulting grammar of these speakers than categorizing the possible cultural connections to the heritage language.

In the US, “foreign language educators use the term *heritage language* to refer to a language student who is raised in a home where a non-English language is spoken, who speaks or at least understands the language, and who is to some degree bilingual in that language and English. For these educators, the heritage language student is also different in important ways from the traditional foreign language student. This difference,

speaker’s family and social group will determine her language profile more than her location. Additionally, there is a certain amount of ambient Welsh throughout the country resulting from official requirements in the form of mandatory bilingual signage, Welsh education, bilingual official forms, and so on. (see Jenkins and Williams 2000; Jones 1993; Morris 2010; Thomas and Williams 2013)

however, has to do with developed functional proficiencies in the heritage language.” (Valdés 2001, 38)

I will be using this definition as the starting point for my Welsh study, where the key defining characteristic of these heritage speakers is the dramatic language shift to English which took place during childhood. Development in Welsh would have been significantly reduced or halted altogether. This could have been due to a move out of a Welsh-speaking area, even out of Wales itself, or due to social pressures upon entering school or transitioning from primary to secondary level. This heritage speaker profile clearly applies to the Welsh speakers who moved into English dominant communities as children, but also to many speakers who experienced the shift more subtly as they grew up in a bilingual community. The intention of this dissertation is to analyze the phenomenon of incomplete language acquisition in the extreme cases of removal from the language community, i.e., to England, but always with reference to the analogous, though subtler, process of language shift in Welsh speaking Wales as well. As a Welsh-dominant child grows up and begins to expand her social circle, ever increasing her exposure to the wider community, locally as well internationally (through books and television, e.g.), her language choices will evolve to fit into that community. For minority language speaking children, this all too often means a decrease in motivation to develop the minority language in favor of the dominant language, in this case English. The status of Welsh in Wales as whole is so fundamental to this issue of heritage language development that the decline of Welsh on a national scale will be revisited in the Conclusions of this dissertation.

The field of heritage language research is not an old one. The term “heritage language” originated in Canada in the 1970s, but became prevalent in international language policy and research only in the 1990s. (Hornberger and Wang 2008, 3) The need to acknowledge this type of speaker and to characterize her abilities, however, was apparent for many years before the term was coined. Notable early research was Nancy Dorian’s work with East Sutherland Gaelic (ESG).

Her study of the “semi-speakers” of that language was a landmark of early research into actually describing the proficiencies of what we now call heritage speakers, though she was using them principally to document the decline of that dialect as a whole. Dorian (1976) describes the decline of gender as a grammatical category in the speech of these ESG speakers, particularly, she proposes, because of their dominant use of a gender-less language, English. Dorian’s work in describing a language community undergoing shift provided insight into what she termed “imperfect speakers.” “They lacked sufficient exposure or motivation to become fully proficient speakers of ESG and have never at any time spoken a grammatically normal form of the language.” (Dorian 1982, 51) These speakers are actually perfect examples of what we are here calling heritage speakers. Dorian defines them by their excellent passive knowledge of ESG but halting speech and deviant grammar. These are the very qualities we will also expect in our heritage Welsh speakers. Dorian’s research on this Celtic language may have been one of the earliest descriptions of heritage language, but it has been only recently that heritage language research has returned to documenting the connection between the heritage language phenomenon and the decline of these minority languages in their home countries.

Most often, heritage language studies have focused on the immigrant languages of Canada and the United States, especially those which are actually major, and healthy, world languages. A quick glance through the issues of the *Heritage Language Journal*⁷ shows that there is far more work being done with major world languages as heritage languages than with endangered languages, either as heritage languages in their home country or as immigrant heritage languages. A reason for this is the need to develop educational tools for heritage speakers in foreign language classrooms. The clear priority, then, is to address the needs of the greatest

⁷ “The *Heritage Language Journal* (HLJ), an online, blind-refereed journal, was established in 2002 to provide a forum for scholars to publish the results of their research and to advance knowledge about educating heritage speakers. HLJ is published by the National Heritage Language Resource Center at UCLA and is housed on a server hosted by the UCLA International Institute.” (<http://www.heritagelanguages.org/about.aspx?about>, accessed 3/29/13)

number of heritage speakers, which in the US is almost certainly heritage speakers of Spanish. It is no surprise, then, that the University of California, Los Angeles, is home to the National Heritage Language Resource Center, one of the fifteen Language Resource Centers established by the US Department of Education in 1990. Its principal mission is to “develop effective pedagogical approaches to teaching heritage language learners,” (National Heritage Language Resource Center 2013) and it hosts the *Heritage Language Journal*.

More than simply speaking these languages for their own sake, aiding the development and maintenance of heritage languages spoken in the American workforce facilitates involvement in the international community and global economy. The Alliance for the Advancement of Heritage Languages makes clear this research aim and its workplace potential in its mission statement:

“The Alliance for the Advancement of Heritage Languages (the Alliance) is a collaboration among individuals and organizations invested in language development for heritage language speakers in the United States. The Alliance is committed to fostering the development of the heritage language proficiencies of individuals in this country as part of a larger effort to educate citizens who can function professionally in English and other languages.” (Alliance for the Advancement of Heritage Languages 2010)

The importance of heritage language maintenance must also be understood for indigenous languages, however, which generally possess little international business advantage. The heritage languages in the first category of Fishman’s (2001) definition are also worth preserving because of their value to their own speaker communities, if not to broader society. It is these indigenous American languages as heritage languages which seem at first to be most similar to the status of the Celtic languages in their home countries. But the *grammatical* characteristics of the heritage language and, consequently, the pedagogical model for the heritage language classroom, do not differ among Fishman’s categories. His heritage language classifications are not particularly relevant when it comes to the practical needs of heritage speakers. The key

commonality among heritage speakers, then, relates not to the category of heritage language which they speak, but rather to their similar language experience profile—early home or community exposure and some amount of real proficiency in the heritage language.

With mandatory Welsh language education in Wales, the need to recognize the heritage speaker and address her particular pedagogical needs has become more urgent. Additionally, both inside and outside of Wales, Welsh for adults classes have been popular for decades and are often attended by students who are actually, in our terms, heritage speakers of the language. (cf. Morris 2000) By no means is the heritage speaker new on the education scene, but the advantages and particular needs of the heritage speaker which set her apart from the typical second language learner have yet to be officially addressed by Welsh language educators.⁸ In the largely parallel Irish language context, “heritage speakers” of Irish have just been introduced as a concept, and an investigation into the role of input in bilingual acquisition has begun. (Guilfoyle 2012a; Guilfoyle 2012b) This dissertation, however, is the beginning of research into Welsh as a heritage language and is the first collection of a specifically heritage Welsh language corpus (Appendix II.1). This project is not particularly interested in heritage language pedagogy (though in the hope that its results have significance in that field indirectly), but prior research into heritage languages in the classroom context elucidates the general characteristics of the heritage speaker more broadly as well. Some of the principal considerations in a language course aimed at developing heritage language proficiency are issues of register, dialect, and confidence, each of which will be addressed in turn below.

Typically, the background of the heritage speaker does not include formal education in the heritage language. As a result, the heritage speaker may never have acquired literacy in the heritage language, nor developed a formal, academic or professional register of speech. The

⁸ The Education Scheme published by the Welsh Assembly Government makes no specific mention of heritage language learners of Welsh, neither the term “heritage language” nor any other similar label. (Welsh Assembly Government 2010)

degree to which literacy must be taught overtly is not without some debate. Cummins' (1984) "interdependence principle" posits that a skill such as literacy can develop as a deeper conceptual understanding in either of a bilingual child's languages, and need not be treated as a discreet, language specific skill. The "underlying cognitive/academic proficiency" is "common across languages." (Cummins 1984, 143) From this we could assume that a heritage Welsh speaker would only need basic instruction in orthography in order to transfer literacy skills from her, presumably, already proficient English literacy. Though some, especially younger, heritage Welsh speakers have actually had some amount of formal Welsh language education in their school years, the ability to understand the literary Welsh register can not be assumed to be part of their language skill set. There is quite a difference between spoken and literary Welsh, which is not strictly an issue of literacy per se. Literary Welsh is almost a dialect of its own, with distinct grammatical conventions and variant inflectional forms.⁹ Literacy in Welsh is not a skill which can transfer from English, despite the possible transfer of some of the pragmatics of literacy. Welsh literary forms must be learned overtly and over years of exposure. The deliberate attention necessary to acquire this aspect of Welsh proficiency makes it an unlikely component of the heritage Welsh speaker profile.

The formal spoken registers that would have developed in the classroom setting are also absent from the repertoire of a heritage speaker with little or no formal Welsh language education. The result is that the heritage speaker typically speaks a sort of "kitchen" or "farmyard" Welsh—i.e., an informal or familial register only. She may be very comfortable in friendly chats on casual topics, but struggles to carry on conversations about business or politics, for example, in a more formal setting. The grammatical structures preferred in communicating

⁹ Compare Thomas's (1996) *Gramadeg y Gymraeg* (Welsh Grammar) to King's (2003) *Modern Welsh: A Comprehensive Grammar* to appreciate the differences. Thomas's is a grammar of literary forms, King's is primarily of colloquial Welsh. The literary language is far more conservative—e.g., the predominance of synthetic over analytic (periphrastic) verb forms in literary Welsh is not mirrored in the colloquial language.

abstract or complicated ideas (i.e., embedded structures) have not been completely acquired, nor has the vocabulary for these topics developed sufficiently. Switching to the dominant language in these cases, if it is an option, is practically inevitable. Thal and Bates (1990) point out that children use reading skills to increase their lexicon and to develop complex syntactic structures, which may explain why the heritage speaker, with her underdeveloped Welsh literacy, would struggle in these areas.

A lack of confidence in her own language abilities is a major component of the heritage speaker profile as well. The heritage speaker may identify with the heritage culture, but feel remote from it at the same time due to an insufficient exposure to the heritage language during childhood. This disconnect is one that should be addressed with sensitivity by educators and researchers. In discussing indigenous American languages and their learners, Carreira (2004) advocates for heritage language education programs to focus on identity and language as they connect to the speakers' own background. The cultural and community relevance of the heritage language is the key motivator for these speakers. The heritage language learner is already a member, to some degree, of the heritage culture. To treat her as a foreign language learner would risk negating that already fragile part of her identity and extinguishing the desire to develop her proficiency in the heritage language.

The missing school exposure to the heritage language is a critical factor in the heritage speaker's reduced confidence. Many times have I encountered a fairly fluent speaker of Welsh who felt that her Welsh was not as good as an adult learner's Welsh, or that she didn't speak "correct" Welsh, because she was never taught the standard¹⁰ language in school. Heritage

¹⁰ In fact, Welsh does not have a standard variety in the way that other European languages can be said to have a standard (high or public) register. There is no single prestige dialect nor has there been a deliberate standardization process of the spoken language, like the Irish Official Standard (though prescriptive grammars may be consulted for a sort of literary standard of Welsh). The "standard" language, when referred to casually, is generally meant as a stand-in for educated or refined language skills of any dialect.

speakers like this are only familiar with their local dialect or the dialect that their family uses at home, and that dialect may be heavy in idiom or regional vocabulary. The psychological component of speaking a heritage language is not one which I feel qualified to address, but a lack of language confidence is manifestly one of the characteristics of the heritage speaker, and therefore is to be included in the heritage speaker profile being constructed in this chapter.

Issues of dialect are also of particular concern to researchers of heritage language phenomena. The *baseline* for comparison to heritage speaker proficiency in any language cannot be the “standard” of that language. It must be the particular dialect to which the heritage speaker has been exposed. The case for recognizing the true baseline of heritage speakers has been argued well by several researchers. (Beaudrie and Ducar 2005; Au and Oh 2009; Parodi 2008; Wong and Xiao 2010; Pires and Rothman 2009; Rothman 2007) Rothman (2007) points out the role of literacy in shaping Brazilian Portuguese speakers’ use of the inflected infinitive. Educated adults have mastered this piece of grammar only through formal education, while the heritage speakers of his study have not reached target proficiency because of their lack of formal linguistic exposure. Using the standard language as the baseline for comparison to the heritage grammar would have obscured the extent of any divergence from expected norms because the form at issue, the inflected infinitive, is not actually present in the spoken, colloquial input to which the heritage speakers are exposed. These heritage speakers, therefore, have not incompletely acquired the inflected infinitive, it is simply not a part of the language (i.e., dialect) of which they are heritage speakers. Research into any language is vulnerable to this sort of oversight, and Welsh is no exception. The true baseline, or target dialect proficiency, must always be accounted for in heritage language research.

While there are clear differences in the style of grammar and vocabulary of the various dialects of Welsh, there is a general North Welsh/South Welsh divide. The subtler divisions between dialects within those two broad dialects—North and South—may, however, be

weakening. The Welsh which is taught to students in the school system, either as the medium of instruction or in dedicated lessons, is inevitably flavored by the dialect of the teacher, despite region specific language instruction materials. Welsh speakers today are also very mobile, carrying their local dialects with them as they relocate, and often landing in the urbanized south of Wales where proficiency in Welsh is an employment advantage. Compound these factors with the homogenizing effects of Welsh language television and radio, and the real differences between the various dialects, especially for younger speakers, often reduces to little more than slight vocabulary idiosyncrasies. A particular focus of linguistic research in Wales is the documentation of these diminishing dialect differences.¹¹ (Thomas 2000) The dialect loss phenomenon can be viewed negatively, as the denuded remains of a once vibrant dialect spectrum, or as a sign of the strength of the language in its continued survival. The ability to have national television and radio programming, to share teaching materials across the country, to conduct business in Welsh on a national scale, and to reach the broadest audience with new literature is a great advantage to maintaining and promoting the use of this minority language at a time when English can so easily fill the role of lingua franca—but it is perhaps not conducive to maintaining dialect distinctions.

Dialect in the heritage language context is not always a simple identification, however, which complicates the establishment of the heritage speaker's baseline. Wiley's (2008) case study of a Taiwanese heritage speaker illustrates this point, while also providing a lesson in the need for classroom sensitivity to heritage speaker dialect. This heritage speaker lived in a Taiwanese and Mandarin speaking household until he emigrated from Taiwan at age 5, but it is important to note that his family's Mandarin was always code-mixed with Taiwanese. Taiwanese had been his

¹¹ An ambitious example is the *Syntactic Atlas of Welsh Dialects*, funded by the British Academy. The *Atlas* is a joint project being conducted by David Willis, Maggie Tallerman and Robert Borsley seeking to determine the extent of syntactic variation across present day dialects of Welsh. The project is ongoing.

stronger language and it was Taiwanese that he continued to occasionally speak with his mother after moving to the US. He stopped attending a community Saturday Chinese school during Middle School, but he chose to enroll in Chinese courses again as a university student. As is most common in the US, all of his Chinese courses were in Mandarin. Whether that dialect is really his heritage language is debatable. He certainly had exposure to the Mandarin spoken by his community in Taiwan, but his Mandarin was heavily influenced by Taiwanese. His experience with reading and writing, both in Taiwan and in his Saturday school, was in the traditional rather than simplified characters, and his spoken Mandarin was with a Taiwanese accent. Both of these characteristics were penalized in his university course—Chinese reading and writing for native speakers. This heritage speaker was willing and eager to reconnect with his Chinese heritage language, even if it was Mandarin rather than Taiwanese, but he did not return to those Chinese classes after that first semester. The instructor stigmatized his previous exposure to the language rather than consider it an asset. In the research context, such disregard for the true baseline of the heritage speaker could also obscure any interesting observations of the heritage language diverging from expected language norms.

The true baseline of the heritage language is essential information in any attempt to understand the non-native proficiency of a heritage speaker. A slight grammatical divergence can be overemphasized if the comparison is with the standard rather than the baseline. Rothman's Brazilian Portuguese example and Wiley's case study both illustrate this point nicely. As I explained above, the dialect differences in Wales are not as great as the differences between Taiwanese and Mandarin, and there is no real spoken standard Welsh acting as the tempting comparandum, but dialect recognition in establishing the baseline is still an important consideration. Because of the nature of the heritage speaker's acquisition, at home, colloquial and familial, the dialect differences may loom larger in their language than in that of a fully proficient speaker. The language that is most mundane and most frequent—the home language rather than

the standard or written variety—may disproportionately carry more of the uniqueness of a dialect than does more formal language. Without the leveling effect of exposure to written or formal Welsh (news media, government documents, and so on), the vocabulary and grammatical forms unique to the spoken baseline dialect are the only linguistic data the heritage speaker has access to. Given these factors, I might hypothesize that dialect variation may be even more pronounced among heritage speakers than in the Welsh speaking population as a whole.

Specific observations about heritage Welsh will be discussed at great length in Part II, but following from the discussion above and from further research into the heritage language phenomenon to be discussed below, we can confirm that there are certain patterns to heritage languages cross-linguistically. A common profile of the heritage speaker and the characteristics of her heritage language grammar begin to emerge. Heritage language in the narrow sense employed in this dissertation is characterized by an often near-native phonology, limited vocabulary, infrequent embedded structure, and the potential for grammatical innovation—but that is not to say that all heritage speakers are exactly alike. The actual language abilities and skill profile of individual speakers fall along a spectrum between extremes from near-native seeming proficiency to barely being able to produce even short utterances in the heritage language. (Polinsky and Kagan 2007, 370-371) Rather than diminish the usefulness of the unifying heritage language label, this “heritage language continuum” actually emphasizes that, despite the varied proficiency levels of heritage speakers, those proficiencies do pattern in ways which effectively distinguish heritage speakers from both fully competent native speakers as well as adult L2 speakers.

The early exposure to natively spoken input results in a phonological advantage over learners coming to a language as adults. Heritage speakers of Spanish in the Los Angeles area have been found to have completely internalized the phonological system as well as mastered the stress and intonation patterns of Spanish. (Parodi 2008) In another study, heritage Korean

speakers with childhood speaking experience are compared with those who only overheard the language but never spoke it themselves. The results show a clear advantage in both production and perception of Korean phonemes for the childhood speakers, but also a clear perceptual advantage for the over-hearers as compared to novice adult learners. (Oh et al. 2003) This observed advantage, however, is not absolutely native-like. The perception of geminate consonants in Lucchese was found to have been lost among some first and second generation Italian immigrants in San Francisco, (Celata and Cancila 2010) and the alignment of pre-nuclear tone in L1 German was found to have shifted after a move to Anglophone Canada during late adolescence. (De Leeuw et al. 2011) So while it is clear that early linguistic exposure confers a greater intuition about phonology than late L2 learning, it is not at all assumed that the phonology of the heritage speaker will be perfectly native-like.

The most obvious sign of a heritage speaker's reduced proficiency may be her limited vocabulary, as it frequently acts as a stumbling block in conversation and can prompt a switch to the dominant language. The ease of code-switching between Welsh and English reduces the motivation to develop or maintain a large vocabulary in Welsh. A frequently cited characteristic of heritage ability is the home or "kitchen" vocabulary, particularly dialectal and insufficient for professional or academic discussions. This limited vocabulary is one of the factors in the heritage speaker's reduced range of registers, but the grammar itself is limited as well. Complicated sentence structure, with embedded clauses and infrequent verbal forms, is understood as an indicator of a high level of fluency—so much so that this will be used as a measure of proficiency in the analysis of Part II of this dissertation. The heritage speaker does not have access to this level of grammatical complexity because of her language's incomplete development. These intricate constructions are characteristic of more sophisticated conversation than is necessary in the home or family language environment where the heritage speaker was exposed to the language. The limited vocabulary, reduced range of registers, and discomfort with infrequent or

opaque grammatical structures are the hallmarks of heritage ability. (Parodi 2008; Polinsky 2008a; Douglas 2008)

Some very interesting analyses have also shown that there is more to heritage language than these gaps and simplifications from the baseline. In some cases the heritage speaker has reanalyzed the grammar, innovating grammatical structures that are consistent within her grammar's logical system but non-native. Russian has grammatical Case, as does the heritage, American Russian analyzed in Polinsky (2008a), but the heritage grammar has a reduced case system. The nominative, citation form is used predominantly for subject and object, for which the accusative form does not appear to be available in the heritage grammar. The accusative form does appear, however, as the case used for goals, or indirect objects, and it is used by the heritage Russian speakers quite consistently with pronominal goals, if variably with nominal ones. This is unexpected and non-native in the target language, but it is a reasonable reorganization of the grammatical information available to these heritage speakers. The American Russian speakers have also been found to reanalyze the gender assignment of nouns based on the ending of the citation form rather than the declensional cases of full Russian. (Polinsky 2008b)

This sort of reanalysis, as a particular focus of heritage language research, can be truly fascinating in a cognitive science sense. We still understand frustratingly little of how the human brain functions, but the field of linguistics contributes to that understanding by its study of this particular product of the brain—language. Language is a uniquely human talent, shared by all in the species, and though the apparent linguistic diversity in the world would seem to indicate that different languages are entirely dissimilar systems, common patterns are easily discerned. (cf. Greenberg 1963; Greenberg 1966) Despite the great variety of languages around the world, there are universal principles guiding the shape of possible grammars that do more to explain the universality of human brain functioning than they do any inherent necessity of vocal communication. A foundational assumption of Generative Linguistics is the role of Universal

Grammar in determining the shape of possible linguistic systems and the ease with which the human child acquires her native language. (cf. Borer 1996; Chomsky 1965) All languages make sense to us as linguistic systems, thus there must be a logical framework common to the cognitive functioning of humans as a species. The discovery of these universal patterns in the spontaneous and innovative language of a heritage speaker—grammar which is not part of the baseline language nor adapted from the speaker’s dominant language, but somehow utilized in spontaneous language production—must be taken as a sign of the innate, logical language programming of the human brain. This is a fascinating avenue of research in heritage language and will be explored further with our heritage Welsh samples in Part II.

A preliminary profile of the heritage language speaker then includes these basic characteristics: native-like phonology, familiarity with a dialect rather than the standard language, reduced vocabulary, limited grammatical range, better conversational than literary proficiency, and possible grammatical innovation. But how is this distinct from the description of a foreign or second-language learner? Montrul (2005) goes so far as to say that factors acting on fossilization¹² in L2 grammar may be the same as those acting on language “arrest” in bilinguals, i.e., the influence of a previously acquired linguistic system (or in this case, a simultaneously acquired linguistic system), developmental errors arising from language universals, amount and quality of input, and frequency of use. But in a comparison of L2 Spanish learners and heritage speakers of Spanish, Montrul found that, while typical intermediate and advanced L2 learners were comparable to heritage speakers in their mastery of the syntax and semantics of the Spanish

¹² “Fossilization” refers to the state of a language form, feature, rule, etc., that has become permanently established in the second language of a learner (or her “interlanguage”) despite being deviant from the target language norm and regardless of further exposure. (Gass and Selinker 2008, 14)

unaccusative,¹³ the low intermediate level of heritage speakers outperformed the low intermediate learner on the same proficiency test. There must, therefore, be some fundamental difference between the type of proficiency attained by the heritage speaker with her natural, simultaneous dual L1 acquisition and that of the L2 learner with only classroom exposure. Neither is fossilization of the endstate L2 grammar like what we see with heritage speaker grammars. The language skills are not frozen at the age of language shift, as we have already seen that there is the possibility of reanalysis in the incomplete grammar which reshapes the output of the heritage speaker. (Polinsky 2008a; Polinsky 2008b) We also do not generally expect foreign language learners to acquire a dialect rather than the standard, and to acquire it with as little explicit, metalinguistic awareness as the heritage speaker tends to possess. The second language learner uses metalinguistic knowledge of the prescribed grammar as the structure around which she composes a sentence, but a heritage speaker uses her own intuitively created utterances to determine what the grammar of the language may be, in the same way as a native monolingual speaker might. The heritage and L2 skill sets are almost inversions of each other, the L2 learner being generally more proficient in written than conversational uses, whereas the heritage speaker is often so native-seeming in conversational fluency that her incomplete grammar is obscured. (Douglas 2008)

This chapter is intended as an introduction to the heritage speaker as a distinct type of language user, but the linguistic consequences of the heritage speaker profile deserve to be discussed further. In the following three chapters, a few of the particularly pertinent issues within the field of language acquisition will be discussed in the heritage language context. The early exposure of the heritage speaker necessitates an understanding of the so-called “Critical Period Hypothesis,” which posits that a particular language learning advantage exists during the years of

¹³ An unaccusative verb is an intransitive verb whose argument is not a semantic agent but rather is similar to the object of a transitive verb or the subject of a passive verb. (e.g., *She died*; *He fell*; but not *I ran*)

childhood. To understand the source of the heritage speaker's deviant proficiency we also must consider the differences between incomplete language acquisition and language attrition, teasing apart the signs of an unfinished language acquisition process from those which indicate the later loss of once fully acquired language abilities. The final topic that deserves our particular attention is the bilingual mind itself. Despite the imbalanced proficiencies of the heritage speaker's dominant and heritage languages, she is bilingual nonetheless, and we will see that to be "bilingual" means more than the compound state of two monolinguals in one mind.

Chapter 2. Heritage Language and the Critical Period Hypothesis

“I have long wondered ... about secondary education from the safe distance of a neurological clinic. I have wondered why the curriculum was not adjusted to the evolution of functional capacity in the brain. ... Before the age of nine to twelve, a child is a specialist in learning to speak. At that age he can learn two or three languages as easily as one. It has been said that an Anglo-Saxon cannot learn other languages well. That is only because, as he grows up, he becomes a stiff and resistant individualist, like a tree—a sort of oak that cannot be bent in any graceful manner. But the Anglo-Saxon, if caught young enough, is as plastic and as good a linguist as the child of any other race.”

(excerpt from a speech by Wilder Penfield at Lower Canada College, 1939;
quoted in Penfield and Roberts 1959, 235-6)

The Critical Period Hypothesis (CPH) has endured as one of the best known theories in the study of language acquisition since its formalization in the middle of the twentieth century. Even laymen interested in language learning have heard of the “critical period” and its repercussions in the field of second language learning. Based on empirical observation and the frustrations of older learners, the CPH seeks to explain how it can be that young children seem to acquire language so effortlessly, and eventually reach the perfect competence of the native speaker, while adults and older children struggle toward outcomes that are often far from native-like. The CPH posits that this asymmetry originates from biological factors, privileging the language knowledge acquired during early childhood. Because heritage language is precisely this sort of language, language which was acquired during the “critical period,” a thorough understanding of the validity of the CPH and its implications clearly has a place in a study of any heritage language. Heritage language also offers a unique perspective on the CPH as the resulting grammar of an acquisition process which not only began during the “critical period,” but which ended there also.

Penfield’s quote above perfectly illustrates the common and traditional view that language learning is a natural talent of youth and, at the same time, an unyielding frustration to

the mature. But this belief far predates Wilder Penfield's speech in 1939. In the fifth century BC, Herodotus told the story of the Egyptian King Psammetichos and the two children he ordered be raised in silence in an effort to discover which language they would develop spontaneously without any environmental input. His was not a curiosity about whether they would speak at all, but simply *which* language would emerge without the bias of any particular language spoken around them. This experiment was repeated in the twelfth century by Emperor Frederic II and in the sixteenth by King James IV of Scotland. Alas, none of these attempts produced any linguistically interesting results.¹ (Marx 1959, 443, 450-1)

During the nineteenth century, linguists such as Wilhelm von Humboldt sought to remove the theory of language from the sphere of philosophy and situate it within the realm of science as part of man's natural endowment. Its biological properties seemed confirmed by the observation that all children acquire language at about the same time, and von Humboldt wrote that it is "characteristic for the unfolding of other biologically given attributes that a certain time is denoted for their development." (quoted in Marx 1959, 458) And so it was that the step which brought linguistics into the field of science crucially depended on the modeling of language as a natural attribute, described by a biologically determined period of development. But it was not until the 1960s that Eric Lenneberg, the acknowledged "father" of the CPH, (Singleton and Ryan 2004, 33) formalized the idea of a so-called "critical period" in language acquisition.

"Between the ages of three and the early teens the possibility for primary language acquisition continues to be good; the individual appears to be most sensitive to stimuli at this time and to preserve some innate flexibility for the organization of brain functions to

¹ These "experiments," while of course cruel and unscientific by today's standards, had they been executed carefully, might have produced some interesting results. The investigators were interested in the question of a divine or God-granted language, innate in humans regardless of external stimulus, and that hypothesis may be closer to what we now know about language than at first it might seem. The language to emerge would surely not have been Greek or Latin, for example, but some system of communication, whether vocal or sign, would certainly have developed naturally between the isolated children and their caregivers, something which we would understand today as language despite being innovated by those individuals.

carry out the complex integration of subprocesses necessary for the smooth elaboration of speech and language. After puberty, the ability for self-organization and adjustment to the physiological demands of verbal behavior quickly declines.” (Lenneberg 1967, 158)

In the time since Lenneberg’s work, the CPH has become the predominant theory of language acquisition with respect to age-related asymmetries in outcomes. It is a simple explanation of well observed phenomena. Indeed, it merely restates a common belief in scientific terms. During the second half of the twentieth century, the CPH was especially attractive within the emerging generative framework of linguistics which fundamentally relied on the notion of language development as a pre-programmed and biologically determined human ability. (Singleton and Ryan 2004, 31; cf. Chomsky 1965; Pesetsky 2009) Based on observations of babbling infants and deaf children, Lenneberg proposed that the ideal language learning period, when the mind is perfectly primed for the rapid and successful acquisition of language, extends from the age of three until puberty. (Lenneberg 1967, 178-182)

Infamous cases of language deprivation in childhood seemed to support the CPH. “Genie” was a captive in her home from infancy until being taken into protective custody at age 13;9. She was held in complete isolation, without exposure to language, and had matured beyond puberty before she began to acquire English subsequent to her rescue. As a result of this language vacuum, presumably, she never achieved native-like proficiency in her overall English grammar despite intensive tutoring and a rapidly growing vocabulary. “Victor,” the eighteenth-century “wild boy of Aveyron”, was supposedly raised by wolves. He repeatedly eluded capture (by well-meaning townspeople) until the local government commissioner for Saint-Sernin took charge of him and sent him to an orphanage. He was estimated to be between 12 and 13 years old at that time. Victor appeared healthy and used a few simple signs to communicate with his caregivers, but his only vocalizations were cries and grunts and he never developed much language beyond the word for “milk”. (Singleton and Ryan 2004, 46-53) Observations of these “feral children”

seem to suggest (in the obvious absence of any way to ethically create controlled experiments to test this hypothesis) that without any language input during the critical period, the lack of early exposure is devastating to the endstate language ability. It cannot be reversed by language immersion later in life. The language opportunity lost is lost forever after the closing of the critical period.

However, these exceptional case-studies can also be dismissed as evidence for the CPH. The conditions of Genie and Victor's early lives certainly also caused severe social and psychological harm in addition to the linguistic damage. This confuses the evidence and makes it impossible to discuss their stories as examples of an otherwise normal process of language development. In Victor's case, too little is reliably recorded to draw any firm conclusions, and in Genie's, there is no way to determine whether the language deprivation itself or her total lack of socialization and traumatic isolation were the real causes of her doomed linguistic faculty. These children have even been used as evidence *against* the CPH. Genie, in particular, was able to make improvements to her slowly growing grammar, eventually being able to speak in simple three- or four-word utterances, produce negative sentences and use possessives and plurals correctly. (Singleton and Ryan 2004, 52-53) It would certainly be an overstatement to claim that she was able to develop language post-critical period in the same manner that a young child does, but neither should her modest achievements be overlooked completely. At the very least Genie's story shows that language acquisition is not such an all-or-nothing prospect across the boundary of the critical period.

Studies of the acquisition of sign language by deaf children have seemed to provide further support to Lenneberg's CPH and its claim that language acquisition begun after the critical period almost invariably falls short of native norms. Only between 3% and 8% of deaf children are born to deaf parents. (Singleton and Ryan 2004, 42) This means that, for many of these children, sign language acquisition may be delayed during their early years of development.

In the absence of effective first language input, the children often develop their own systems of sign gestures to communicate, but do not move toward fluency in a full sign language until they are diagnosed as deaf and begin their exposure to that language. By asserting that the critical period begins after age two rather than birth, Lenneberg was able to account for how these children can begin their language acquisition process a few years later than hearing children, though still attain native proficiency. His decision to set the onset of critical period at age 2 (modified from the above stated age 3) was determined by work with partially deaf children who were able to develop good speech habits if sound training and prosthetic aid was received by that age. (Lenneberg 1959, 179) Unfortunately, there are also studies of completely deaf individuals who were not exposed to sign language until after the age of 12 or much later, due to early misdiagnosis of mental delay rather than deafness. “Chelsea” is another oft-cited example of a late first language learner. She did not begin to learn American Sign Language (ASL), her first language, until she was in her thirties. Like Genie and Victor, she never reached native standards in morphology and syntax despite her rapid lexical and semantic development. (Singleton and Ryan 2004, 43-44) Even after 30 years of daily use, deaf American adults have been found to vary in their control of ASL morphology based on age of acquisition. (Newport 1990)

Given the difficulty of testing the Critical Period Hypothesis in first language monolingual development, evidence is most often sought in the field of second language acquisition (SLA), where the professional opinion of language teachers and the personal experiences of students tend to confirm the basic claim of the CPH. It could even be considered common knowledge that children are better foreign language learners than adults. Though testimony of this sort is certainly not admissible as evidence of the critical period on its own, such anecdotal support should not be dismissed out of hand, and, indeed, many early SLA studies also seemed to corroborate the CPH. Research with controlled language learning tasks, as well as

studies of naturalistic SLA by immigrants and classroom-based foreign language learning, have indicated a role played by a critical period in the variable success of adult language acquisition.

Yamada et al. (1980) tested 30 Japanese students in learning 4 English words chosen from a list of 40. None of the subjects had any exposure to English prior to the test. They were divided into 3 age-groups, 7, 9 and 11 years old, and tested in two learning sessions separated by 24 hours. The study found that the younger the learner, the better they were able to learn the vocabulary. The researchers conclude that the success of language acquisition (or the vocabulary component of language acquisition, at least) diminishes with age, but not necessarily according to Lenneberg's strict period of sensitivity. Asher and García's (1969) study of the English pronunciation of 71 Cuban immigrants in California, aged between 7 and 19 years old, also showed that the younger the learner, the better the outcome. The age of initial exposure to English proved to be a better predictor of successful pronunciation than the length of residence in California, but here also, the age of puberty was not found to be the distinct boundary predicted by the CPH. Moving away from a strict critical period, Yamada et al. (1980) soften the theory to a prediction of "optimum ages" for the acquisition of each component of grammar.

"A number of question-begging arguments on the critical period for language learning seem to indicate that there is no single optimum age for learning language as a whole but that there are different optimum ages, depending on which particular aspect of the language and which particular learning conditions are being considered."
(Yamada et al. 1980, 245)

Morphosyntactic judgment was tested in another well-known study of immigrants in the US. Johnson and Newport (1989) looked at the English acquisition of 46 adult Korean and Chinese immigrants who had been in America for at least 5 years but who varied in their age of arrival. Those who had arrived before the age of 7 performed with near-native competence, but performance declined linearly with age of arrival for those who had arrived between the ages of 7 and 15. That pattern disappeared for those subjects who had arrived around the age of 17 and

their morphosyntactic judgments were reported to be random. This would support the idea of a definite end-boundary to the optimum period of language acquisition, albeit a later one than that of Lenneberg's CPH. Despite these (and many other) studies of age effects in SLA, however, which seem to confirm the anecdotal evidence of foreign language teachers and support the claim of cognitive sensitivity during a critical period, later reviews have found that some of these research observations can be interpreted very differently. There are other factors related to aging that should be taken into account when claiming an age effect in learning.

Using more data than the studies cited above, Hakuta et al. (2003) tested the predictive power of the CPH in SLA using information from the 1990 US Census. The self-reported English proficiency scores of 2.3 million immigrants with Spanish or Chinese language backgrounds (self-selected from 5 English ability options ranging from "not at all" to "speak only English") were plotted and compared to the key prediction of the CPH—that language ability scores should drop off dramatically when the age of acquisition (in this case, age of arrival) passes the end of the critical period, and the relationship between learning and age should be different inside and outside this critical period. But the results do not support this claim. Rather than observing a different slope before and after the end of the critical period, the researchers found that the decline in language learning outcome continued steadily beyond the end of that period, even when the edge was extended as far as age 20. This is in direct contradiction to the Johnson and Newport (1989) study discussed above.

Recall that Johnson and Newport (1989) very neatly split the English language learners into 3 predictable age groups. Learning begun before age 7 was a near-total success, while the 7 to 15 range varied as a function of age of acquisition. However, their cutoff at around age 17 for the predictive power of age of arrival on performance is contested in Bialystok (1997). Her reanalysis shows that age of arrival continues to correlate with outcomes even if the cut-off of the critical period is extended from age 17 to age 20, well beyond the end of the traditional CPH

formulation which posits puberty as the end of neural plasticity and consequently language learning sensitivity. The inconclusive nature of these results suggests that variables other than childhood specific neural development may be at work in early language learning sensitivity.

The concept of critical periods is not unique to the study of human language, and so came into linguistics already a well-tested theory. The idea of a biologically pre-determined period during which some ability must be developed or some competency learned has also been applied in the animal world. The process of imprinting by goslings and ducklings is a perfect example. For the hatchling, the critical period is no more than 36 hours during which it must attach to a parental figure. (Singleton and Ryan 2004, 32) If the mother is absent, the hatchling will instead “imprint” on a toy or a human in preference to its mother, continuing to follow that rather than its mother should she return. (Asher and Garcia 1969, 334) Another example is a study by Wiesel and Hubel (1963) which found that kittens who were temporarily blinded in one eye from birth to three months never fully developed vision in that eye. The “critical” in “critical period” refers to a finite period during which the relevant neurons are plastic enough to make the connections which are necessary for normal development. In biology, the term implies a specific beginning and end beyond which the process may neither begin nor continue, but language may prove too complex a competency to be limited to such a period. The CPH specifically proposes brain development as the determining factor of age effects in language learning, but the development of the brain is not so well understood yet that we can securely parameterize an age range during which the language acquisition process would be different from any other period. Indeed, language learning—its initial acquisition as well as its refinement—seems rather to be a process which continues throughout the lifespan as skills like literacy and creative expression are developed.

The neurobiological evidence used in support of the CPH has proven controversial. Fundamentally, language acquisition is supposed to occur before the lateralization of the brain, or the period when the dominant hemisphere specializes for the language function (usually the left).

It is generally agreed that the child's brain is more plastic than the adult brain and studies of speech recovery after brain damage or surgery usually show that children tend to be more successful than adults in transferring a particular cognitive function from a damaged to an undamaged area. (Singleton and Ryan 2004, 131-133) This has been taken to mean that, for the purposes of language learning, the brain becomes progressively "stiff and rigid" after about age nine. (Penfield and Roberts 1959, 236) But the connection between this neural flexibility, which gradually decreases with age, and the commonly drawn corollary of a critical period specific to normal language development has been difficult to prove. A looming question seems to be, if adult language learning is physiologically handicapped, how is it possible at all for adults to learn foreign languages? (Newmark and Reibel 1968, 154ff.)

Dehaene et al. (1997) seems to provide evidence of a fundamental difference in the cognitive processing of early acquired language and that of a later learned second language. Using functional magnetic resonance imaging (fMRI), the investigators were interested in where brain activation would occur during language comprehension in French-English bilinguals. The subjects were native French speakers and had learned English after age 7. The investigators observed that the areas of the bilingual brain which were activated during first language (L1) processing were not also consistently recruited for second language (L2) processing. They interpret this to indicate that L1 and post-critical period L2 are not processed in the same area of the brain, and therefore that L1 and L2 acquisition are fundamentally different processes.² This conclusion does not, however, give adequate consideration to the unmatched proficiency levels of the L1 and L2 reported for these speakers.

² Interestingly, this would also call into question the validity of using any study of second language acquisition as data for claims about first language acquisition or language acquisition as a single unified process. If the areas of the brain utilized during language processing are different depending on the sequence in which a bilingual's languages were acquired, or the age at which they were acquired, can we then also claim uncontroversially that the language acquiring mind, at any age, always has access to the innate human linguistic faculty, or Universal Grammar? This is a question of considerable debate (cf. Borer 1996; Pesetsky 2009)

In a direct challenge to these conclusions, Chee, et al. (1999) also use fMRI to address this unsolved question of how multiple languages are organized in the bilingual brain. In this study, two groups of mandarin-English bilinguals were recruited—15 participants had been exposed to both English and Mandarin before age 6, and 9 participants had not been exposed to English until after age 12. The areas of the brain shown to be activated during a word-production task (cued by pictures) were the same for both groups and in both languages. The researchers interpret this result as a rejection of the claim that L2 processing is organized in the right hemisphere, as Dehaene et al. (1997) claim, and as a rebuttal of the lateralization argument for the CPH.

“...it is generally accepted that it is easier to acquire L2 and to do so more completely if one is exposed to it earlier ... However, there is no *a priori* reason to expect a different cortical organization of L2 to account for these differences in processing. The similarity in activations seen in early and late bilingual subjects argues against a change in the cerebral plasticity for language with age in terms of where (rather than how) word processing occurs.” (Chee, et al., 1999; 3055)

As this quote shows, the Chee et al. (1999) study does not preclude the possibility that there is a childhood advantage in language learning, but the researchers do argue that there is no particular support for a critical period in the cortical arrangement of L1 and L2. This is, indeed, a blow to the CPH, which is based upon the assumption that the brain does physically differentiate early and later acquired languages.

The evidence reviewed so far has not entirely debunked the validity of age of acquisition as a fairly reliable predictor of eventual proficiency. The CPH seems consistent with those few cases of total language deprivation where less-than-native fluency was the best that could be achieved by post-puberty L1 learners. And once the critical period has been relaxed to a set of optimal ages for the acquisition of each grammatical component (as in Yamada et al. 1980), early childhood language acquisition still seems to be privileged. There is a great deal more evidence

yet from the field of SLA, however, and that evidence does not consistently support the idea of a diminished language learning capacity after puberty. Older children and adult second language learners are frequently observed to fall short of native speaker norms, but what is usually reported in the research is a linear decrease of ability with age, not a linguistic cliff after middle childhood. Importantly, the rate of that age-related diminishing capacity is not equal among the various components of the language grammar—morphosyntax, the lexicon, and phonology. Language is not acquired as a single whole, it seems, but rather its component systems develop during their own acquisition periods, Yamada et al.'s (1980) "optimum ages," which extend to greater or lesser extents beyond the edge of Lenneberg's critical period.

Linguists have come to appreciate that even monolingual first language acquisition continues beyond the edge of the critical period, even if that critical period is stretched as far as into the teenage years. Nippold (1998) goes so far as to say that "it is difficult to identify any point in the lifespan when the process of language development is truly complete". (Nippold 1998, 1) Feofanov (1960) claims Russian-speaking children struggle with prepositions well into their teens; Thurstone (1955) says English verbal comprehension is only 80% of adult competence at age 18; Lynch (2003) reports that Spanish subjunctive, conditional and perfect forms are not acquired until after age 12. The obvious sign of this ongoing process, of course, is the continuing growth of the lexicon throughout the lifespan, most notably with the eager acquisition of slang during the teen years. But even beyond vocabulary, the language system as a whole, including that of a monolingual, has been shown to continue to develop after the end of what has been supposed to be the critical period for language acquisition.

Literacy promotes the growth of the lexicon, but it also fosters the recognition of grammatical well-formedness as children learn to compose and recognize the sentences of their native language metalinguistically. As conscious knowledge of the grammatical structures available in the native language expands with literacy, the child is also made aware of literary

styles and formal grammatical options which are often more complicated than colloquial forms. Literacy, and the realization it necessitates that language is a system of abstract representation which can be shaped as much by expressive choice as by the real world it is meant to describe, is itself a lesson to children about their own language. (Singleton and Ryan 2004, 26) The importance of formal education is also clear in the development of differentiated registers during adolescence, one for home and family, possibly another for the friend-group, and, crucially, one for the academic environment. The ability to appropriately modulate one's register of spoken language is also a component of language proficiency that continues to mature after childhood. Indeed, the absence of these normal language learning experiences in the profile of the heritage speaker were discussed in Chapter 1 as contributing factors to the divergence which is consistently observed in heritage language grammars.

Sentence length and information density within an utterance also increase through the teen years as the use of embedded clauses and less-frequent grammatical structures becomes more fluent. Even the expression of the adolescent's developing personality follows from the expansion of "linguistic individualism," especially in the areas of pragmatic and semantic growth. The development of social tact leads to a better understanding of linguistic pragmatics and the rapidly broadening base of experience results in an ever improving semantic capacity to define abstract nouns, idioms and proverbs. (Singleton and Ryan 2004, 55-60) Morphology has also been shown to continue to develop into adulthood. Smedts' (1988) study of L1 derivational morphology in Dutch shows that children produce native-like adult forms at surprisingly low rates—17% by 7-year olds, 51% by 13-year-olds, and most surprising, only 66% by 17-year-olds. Clearly, the critical period, even loosely defined, is not determining the end boundary of native morphosyntactic development if adult competence in Dutch morphology is not reached even by age 17.

After rejecting puberty as the cut-off for successful language acquisition, we should also reexamine the onset of Lenneberg's "critical period," age two. There is certainly no consensus on the validity of this either.

"Language cannot begin to develop until a certain level of physical maturation and growth has been attained. Between the ages of two and three years language emerges by an interaction of maturation and self-programmed learning." (Lenneberg 1967, 158)

Several studies to date challenge the notion that it takes as long as two years before the infant mind can "begin to develop" language. At 4.5 months old, children can recognize their name, which shows that some amount of linguistic knowledge must be present already. (Singleton and Ryan 2004, 38) The emergence of phonological awareness is investigated in de Boysson-Bardies et al. (1984). In this study, adults are shown to be able to recognize whether it is their own language being acquired by 8- and 10-month old infants based solely on the intonation patterns of the infants' babbling. The language acquisition process must already be well on its way at this age in order for native language specificity to have progressed to such recognizable levels. Indeed, babbling itself can be considered part of language, just one of its earliest stages of development. Because cooing and babbling were not considered by Lenneberg to be part of language proper, timing this stage prior to the critical period was not a problem. But these are exercises by which the infant first explores syllable structure and phoneme formation, and this is the period when patterns emerge that begin to reflect the language of the child's environment. (Singleton and Ryan 2004, 12-13)

Yet even more impressive are the studies by Eimas et al. (1971) and Streeter (1976) which provide evidence that infants as young as 1-month-old are able to discriminate between the phonemes of their own language, and to disregard sound contrasts that are not relevant in that language. Ramus et al. (1999) even suggests that infants become biased to the sounds of their native language while still in utero. The age-2 onset of the critical period is so thoroughly rejected

by Thal and Bates (1990) that they claim language acquisition is essentially *complete* by age 3, after which language development is simply a matter of lexical development and the increase of grammatical proficiency with practice. The studies discussed above in connection with the end boundary of the critical period would seem to cast a great deal of doubt on that particular assertion, but Thal and Bates must observe a great deal of language development before age 3, indeed, in order to make such a claim.

With so much research contradicting the boundaries set by Lenneberg's critical period, linguists have also returned to his foundational assumption. Is it empirically true that young learners are always better than older learners? Even if the strong view of the CPH, limiting the learning period to extend no further than puberty, cannot be maintained after the discussion above, a weaker view may. Many proponents of the CPH now allow for a continued acquisition process after the end of the critical period, though they maintain that learning accomplished younger is inherently more efficient. (Singleton and Ryan 2004, 33) However, not all linguists would agree with that formulation either. Snow and Hoefnagel-Höhle (1978) present results in direct opposition to the predictions of the CPH. In this study of L2 Dutch acquisition by native English speaking immigrants, the investigators used several measures to test L2 learners of 5 age ranges—3-5, 6-7, 8-10, 12-15, and adult—who were learning Dutch in the Netherlands through immersion, i.e., by picking it up from their surroundings at school or work rather than through a formal classroom method. The participants were tested at three intervals during the first year after immigration, and a language learning advantage was found for the adults and teenagers, rather than the younger children. Contrary to the predictions of the CPH, the learners whose acquisition was most rapid and successful overall during the first year were the 12-15 year olds. The group which consistently scored the worst on all measures tested was that of the 3-5 year olds. In the initial period, the only test in which the 12-15-year old and adult age groups did not show the most rapid improvement was in pronunciation. Clearly these results are inconsistent with the

CPH, whether the strong or weak view, though a possible exception for phonology may exist. As was discussed in Chapter 1, the heritage speaker profile generally includes near-native phonological knowledge, supporting the claim that youth is privileged for the acquisition of this component of the grammar, at least, and I will revisit the phonological advantage below.

Further support for an older learner advantage comes from a study of SLA and the effect of length of language use on outcome. Ramsey and Wright (1974) tested the English proficiency of school-age immigrants in Toronto. Vocabulary, perception, intonation, and functional and idiomatic knowledge were compared to grade-level norms for native speakers. From their data, these researchers conclude that there is a clear negative relationship between age of arrival in Canada (or age of acquisition onset) and test performance for those children who had arrived after age 7. This is a result which is fairly consistent with the CPH. But Cummins (1981) takes issue with this conclusion, pointing out that if the researchers control for length of residence, the data show instead that the children who were older when they arrived actually outperform younger learners in approaching grade norms. The determining factor in proficiency is not how old the children were when they immigrated, but rather how *long* the children had been learning and using English. The younger ages of arrival correlate with longer residencies in this study, confusing the initial analysis. The better language skills of older students can also be attributed to the fact that much more sophistication is expected in the linguistic expression of students in the higher grades. Younger children have a much lower standard to reach in order to meet the native language abilities of their peers. Like Snow and Hoefnagel-Höhle (1978), Cummins' (1981) arguments support a reversal of the basic tenets of the CPH.

The reasons for any observed asymmetry in age-related SLA outcomes may have nothing at all to do with a connection between language acquisition and childhood neuroplasticity, which has already been called into question by Chee et al. (1999). The rigidity of the brain is surely only one factor among many complex interactions and influences which potentially influence language

learning outcomes, both for L1 and L2. Childhood is remarkable as a stage in the human life cycle for more than simply being the period during which language emerges. Other social and cognitive developments which may develop in early childhood, such as theory of mind³ and basic computational skills, are important prerequisites to language development—theory of mind because by age 4 children are able to comprehend why vocal communication is necessary (Singleton and Ryan 2004, 45) and basic computation because it is argued that the foundation of phrase construction in human language follows from our ability to combine linguistic objects into sets (cf. Chomsky 1995, 225-235). These and other reasons may explain why it is *possible* for language to emerge during this period, but not that it is *necessary* for it to happen during this period.

It is important to take note of methodology in any study supporting or refuting the CPH. I have already alluded several times to the variable importance of early acquisition to each of the component systems of grammar. The critical period has already been discredited above in relation to morphosyntax, but lexical development is most clearly the module of language which is least reconcilable with the CPH. Vocabulary continues to develop throughout the speaker's lifetime, as changing technological jargon is introduced or new interests are developed, so positing a critical period for the lexicon is immediately problematic. Phonology, however, seems to have emerged as the least controversial claim within the CPH literature.

Oh et al. (2003) and Knightly et al. (2003) have shown, through their analyses of heritage speakers in fact, that an argument can be made for the importance of early acquisition to attaining (near) native-like phonological skills. Oh et al. (2003), as was discussed in Chapter 1, found that adults who were childhood speakers of Korean for a few years have an advantage over novice

³ “Theory of Mind” (ToM) refers to the ability of an individual to attribute mental states, thoughts, beliefs, desires, intentions, etc., to himself and to others, while understanding that those of others may be different from his own.

learners in the perception and production of Korean speech sounds. And Knightly et al. (2008) found that even those heritage speakers who had merely overheard their heritage language, Spanish, during childhood have a pronunciation advantage over novice late L2 learners. These two studies are representative of the value heritage language research has to the parallel fields of L1 and L2 acquisition research. As the language acquisition of the heritage speaker is so intimately connected to the period in childhood considered to be so important in language acquisition, the resulting grammar is able to uniquely highlight the particular language talent (or lack of talent) that is truly possessed by the childhood mind. The heritage speaker's abilities are not, generally, contaminated by continued language use and development after the end of childhood.

Flege et al. (1999) also posits a childhood advantage to learning phonology while at the same time rejecting the CPH for other aspects of grammar. 240 native speakers of Korean who varied by their age of immigration to the US were evaluated for foreign accent and knowledge of English morphosyntax. Age of arrival became a non-significant predictor of scores on the grammaticality judgment test⁴ after the amount of education in the US and the amount of English used on a regular basis were controlled for—but the age of arrival could still reliably predict the foreign accent rating. Studies such as Fathman and Precup (1983) and Tahta et. al (1981) also support the view, without necessarily supporting the CPH generally, that age crucially determines ultimate phonological acquisition. These studies report a decrease in the aural-oral, language comprehension and production, skills of older learners as compared to those of younger learners.

It would seem that the theory of an early exposure advantage for successful acquisition of phonology is less controversial than an early exposure advantage for other areas of language

⁴ Grammaticality Judgment Tasks are typically written tasks in which participants are presented with some number of language samples and asked to rank or otherwise indicate whether or not those samples are permissible in the language based on their (often intuitional) understanding of that language. These tasks are used with both L1 and L2 speakers.

proficiency. The reasons for this exception to the anti-CPH position are still uncertain. It is not disputed that hearing acuity deteriorates with age, though whether or not this deterioration is significant enough (especially during the teen and young adult years immediately following the supposed sensitive period) to affect the language acquisition process is doubtful. (Singleton and Ryan 2004, 119-121) Some, though, have argued that there is a neuromuscular basis of phonology and for this reason it must be considered separately from other aspects of language. (Scovel 1988, 101) Because phonology develops also as a physical skill, with the growth of the child's mouth, tongue, and inner ear, it is easy to set it apart from the rest of a language system which is exclusively cognitive.

Alternatively, Tomasello and Bates (2001) propose that it is the process of learning the first language itself which closes the mind off to repeating the process with a new language later in life, that the operations involved in acquiring a language can only be carried out efficiently one time. In a similar vein, Flege (1981) offers an explanation of the younger learner's advantage in phonology in particular with the suggestion that the very young learner is not simply "translating" the sound system of her L1 into that of the L2, rather that she is developing the two systems independently and concurrently and so is able to come closer to the native values in the way a monolingual acquirer would. (Flege 1981) However, despite all the possible explanations presented here, there is still no consensus about why the child learner is so often more successful in learning the sound patterns of a second language than the adult learner. And, while acknowledging this nuance to the CPH debate, it is also important to point out that none of the studies cited here which support a phonological advantage to childhood acquisition claim that the data support a strong version of the critical period. Rather, success in acquiring the phonology of a new language *gradually* decreases with age, even beyond the supposed cut-off of the critical period.

With the flexibility now required to make the beginning and end of the critical period consistent with all the research, it is not surprising to also conclude that the CPH is no longer a well-defined hypothesis and ought to be rejected as too narrow and empirically disappointing. That is not to say that many of the observations on which it was originally founded were inaccurate, but that they still require explanation. The CPH has been tweaked and weakened so much over the years that the evolution of the idea of a childhood advantage in language learning has turned fully away from a biological explanation and toward a social one. Age-related asymmetries in language acquisition may be due rather to a complex of factors, such as motivation, amount and quality of exposure, literacy and the transferable skills of formal education, cross-linguistic influence, as well as (or instead of) cerebral development at the age of initial exposure. “By the adolescent years, a quite distinct array of social and cognitive factors determining language acquisition and use is at play.” (Lynch 2003, 1)

One of the problems evident in many of the studies discussed above is an underestimation of the importance of the length of residence to an immigrant’s L2 acquisition. This is a question about the amount of exposure to the language, and one which may depend on more than just the number of years in a country. The amount that the language being acquired is used at home and in social circles, in addition to school or the workplace, can have a large effect on language learning outcomes. This seems like a trivial observation but it is often the true reason behind the lack of success older learners tend to have in learning a new language. An adult immigrant with a social network already in place in the L1, possibly including, as in the Snow and Hoefnagel-Höhle (1978) study, a linguistically accommodating workplace, will have far less motivation to acquire the L2 than the child. By motivation, in this sense, I do not mean the enthusiasm of an eager language student so much as the real practical necessity to use the L2 in order to communicate and function in the new society. A school-age immigrant is under much more pressure to conform to the new community and its language in order to succeed academically and socially. This social

motivation may be the root of the successful acquisition of Dutch by the 12-15 year olds in the Snow and Hoefnagel-Höhle (1978) study. This is, arguably, the age group most driven to socialize in the new country, and perhaps also the school-level under the most pressure to catch up linguistically.

Ben-Rafael and Schmid (2007) also highlights the importance of motivation in language learning outcomes. Looking at the language profiles of immigrants to Israel, the investigators observed clear patterns based on the ideological motivation to learn Hebrew. Francophones who had emigrated in the 1950s and 1960s, moved onto kibbutzim, and were motivated to build a nation were found to be far less likely to have maintained their L1 than Russian immigrants in the 1990s, who kept their L1 and taught it to their children. In discussing the linguistic choices of immigrants (a point which is of particularly relevance to heritage speakers also) Jia and Aaronson (1999) propose the Dominant Language Switch and Maintenance Hypothesis:

“Younger arrivals may experience a dominance language switch process, that is, acquiring L2 is a dramatic process of *switching* their dominant language from L1 to L2. Older arrivals may experience a dominant language maintenance process, that is, acquiring L2 is *adding* a new language to their consistently dominant L1, the prototypical L2 acquisition process traditionally assumed in the literature.” (Jia and Aaronson 1999, 302)

These two processes are not equivalent, and the speakers undergoing them are experiencing different language learning pressures. This may be a better explanation of any difference in their ultimate L2 attainment than the CPH—at the outset, these learners do not comprise a homogeneous group and so cannot be compared for proof of a critical period. (Jia and Aaronson 1999, 302)

These observations about the variable motivations of L2 acquirers of different ages have pertinence in the context of heritage language as well. Our working assumption in this chapter, particularly in touting the usefulness of the heritage speaker in testing the predictions of the CPH,

has been that the heritage speaker ceases to use her heritage language after the interruption of acquisition in childhood. We know from Chapter 1, however, that this is only one possibility. Heritage speakers may also continue to use their heritage language to a greater or lesser extent during later childhood and adulthood, and that extent is partially determined by precisely the sort of motivational factors discussed above in connection with L2 acquisition and L1 maintenance. Heritage speakers of Welsh, in particular, whose grammars are very often not the result of simultaneous (imbalanced) bilingualism but of language shift and the replacement of the dominant community language for the minority language, are as affected by sociolinguistic factors in maintaining their L1 as are the speakers discussed above. Social pressures which acted against the maintenance of Welsh in the early and mid-twentieth century undoubtedly affected those who became heritage speakers at that time, like Jia and Aronson's younger immigrants. But younger heritage speakers, who live in a modern Wales where employment opportunities are considered to be plentiful for Welsh speakers, are likely to pattern more like the older immigrants of this "Dominant Language Switch and Maintenance Hypothesis." Despite their incomplete initial Welsh acquisition, these speakers may be motivated to maintain whatever abilities they do have. Motivation as a factor affecting childhood bilingualism is not restricted to the domain of SLA, but is also a very prominent part of heritage language acquisition and maintenance as well.

We have seen that the common assumption that younger children are the best language learners is not supported by empirical studies. Many factors beyond neurological development seem to dominate the language acquisition process, both in L1 and L2. In fact, adults and older children often outperform the supposedly superior language acquisition abilities of young children in L2 acquisition. Krashen, et. al (1979) summarizes these seemingly contradictory observations with the following three hypotheses:

“(1) Adults proceed through early stages of syntactic and morphological development faster than children (where time and exposure are held constant). (2) Older children acquire faster than younger children (again, in early stages of morphological and

syntactic development where time and exposure are held constant). (3) Acquirers who begin natural exposure to second languages during childhood generally achieve higher second language proficiency than those beginning as adults.” (Krashen et al. 1979, 573)

The strength of the younger learner is of a psychological, rather than biological, nature, and relates as much to the influences of other childhood experiences as it does to the innate language faculty. The motivation and social development of children seem more likely to be their advantages than any age-restricted neurological plasticity, and those advantages are not necessarily exclusive of older children or adults.

With the complications of the CPH debate laid out, the implications to heritage language should be clear. It is the very question at issue, the importance of language exposure during childhood, that particularly characterizes the heritage speaker and distinguishes her from the second language learner. Following from the CPH, we should expect that childhood learning is privileged, and therefore that there is some advantage evident in the heritage language acquired during the critical period, however loosely defined. If we take the CPH to be entirely debunked, however, there should be no such advantage to any early acquired heritage language proficiency. Heritage speakers who attempt to return to the language as adults after a long period devoid of exposure may potentially offer a decisive answer on the privileged status of early language acquisition.

Without privileging their childhood exposure, these heritage speaker should present with the same skills and language outcomes as incomplete adult acquirers. If, on the other hand, we adopt the modified CPH, and expect childhood exposure to the language to have been stored more successfully than incomplete adult L2, then the heritage speaker should have linguistic proficiencies equaling those of the native speaker. Neither of these hypotheses truly explains the heritage speaker profile, however. Following from the discussion of this chapter, we should actually expect the only truly advantaged component of the heritage grammar to be phonology,

and indeed, native-like phonology is part of the heritage speaker skill set. The lexicon should not be particularly large simply because of the early exposure, though the heritage language vocabulary is certainly shaped by the nature of that childhood exposure, as was discussed Chapter 1. Morphosyntax has proven to be a more problematic subject, however, both in connection to the critical period and as a divergent component of heritage language. It would seem that, judging by the pattern of these three components of the heritage grammar, heritage language proficiencies do seem particularly shaped by their association with particularly early exposure.

Research related to the CPH is ongoing, but, of particular interest to this dissertation, heritage language speakers can offer a singularly informative insight into the issue. Evidence against a position any stronger than the tentative formulation posed above (Krashen 1979) comes from a study of Korean adoptees in France. Investigating L1 rather than L2 knowledge, Pallier, et al. (2003) explores the possible storage strength of Korean in the minds of Korean adoptees who were completely removed from exposure to Korean after their adoption. The participants of this study are heritage speakers at the extreme end of language exposure curtailment, being abruptly cut off from the language that had been their only native language during early childhood. The subjects of the study ranged in their age of adoption, i.e., in the age at which their exposure to Korean ended, from 3 to 9 years old, but none were found to have more knowledge of Korean than monolingual French speakers. In the study, Korean, Japanese, Swedish, Polish and Wolof sentences and words were produced, and the subjects were asked to identify the language. The adoptees performed only as well as the native monolingual French controls in recognizing which were the Korean samples and, using fMRI scans, the investigators also observed that the adoptees experienced brain activations similar to the French controls. There seemed to be no advantage to having been exposed to Korean as young children, even when that exposure extended as late as age 9.

In a related study, Ventureyra et al. (2004) tested whether these Korean-French adoptees would be able to identify Korean phonemes better than native French speakers. Again, there was no significant difference between the performance of the adoptees and that of the monolingual French speakers. Evidently, the early exposure to the Korean sound system was not permanently stored. After the conclusions of these two studies in particular, the argument that the critical period is one of unique neuroplasticity, during which the brain is perfectly primed for the acquisition—and therefore storage—of linguistic knowledge cannot be maintained. This has clear implications for how we think about language attrition, a topic to be explored in the next chapter, but it is also another example of the supposedly extraordinary linguistic organ, the child brain, disappointing investigators who seek evidence of its unique aptitude.

On the other hand, recall from Chapter 1 that Au et al. (2008) argued convincingly for a phonological advantage for childhood overhearers and childhood speakers (both heritage speakers), in the cases when the language continues to exist in the environment. A critical point to make is that the researchers working with the Korean adoptees (Pallier et al. 2003; Ventureyra et al. 2004) were not working with heritage speakers of a similar profile. Their Korean adoptee subjects were completely isolated from linguistic exposure to Korean after adoption, and this vacuum, while informative about storage strength, it is not often the experience of the heritage speaker. Tees and Werker (1984) offers a counter example to the Korean adoptee study. Those investigators found a phonological advantage over adult learners in the speech of heritage speakers of Hindi, but that study contrasts in one important way with the studies of the Korean adoptees. Despite the complete shift away from hearing the language in their environment, the Hindi heritage speakers continued to be exposed to some Hindi phonemes in the accented English that was spoken around them. The result was that those Hindi heritage speakers could more accurately perceive some Hindi speech sounds than could adult novice learners. The crucial factor

seems not to be the age of initial exposure, but the amount of sustained exposure, and thus really has nothing to do with the CPH at all.

The CPH, then, has been thoroughly weakened as an explanation of any observed asymmetries between child and adult language acquisition. The neurological support, the lateralization of the young brain and the cortical arrangement of L1 and L2, has been undermined with fMRI studies. Research of immigrant SLA has not only demonstrated that the upper bound of Lenneberg's critical period is far too young, but even that there may be an acquisition advantage *after* that boundary. The only component of the grammar which remains in support of the supposition that language acquired young is acquired better is the phonology. Childhood exposure to and use of the sound system of a particular language has been demonstrated to be a significant indicator of ultimate phonological proficiency. Any advantage in acquiring morphosyntax during childhood, however, has been seriously problematized.

Heritage speakers are clearly a very informative test population for evaluating the predictions of the CPH. In fact, the very phenomenon under investigation in heritage language research—the switch from a home to a culturally dominant language—demonstrates the opposite of what the CPH predicts. Language shift is the process by which the child begins to learn the new language *after* the beginning of the critical period, often even well inside the critical period, but nevertheless becomes dominant in that new language at the expense of the heritage, or home, language. The language loss in this so-called “subtractive” bilingualism should be severely limited if the CPH holds, but that is clearly not the case. The early exposure does not win out over the later, social dominance of the L2, and the L1 suffers attrition as the L2 develops, even in older children. Studying this dramatic language transition during middle childhood, right in the middle of the critical period, could either confuse or elucidate our problems with the CPH. The adult heritage speaker should be able to access that early learned language, if the brain was especially sensitive at that time to language acquisition. But if language shift exists as a phenomenon in

which the L1 can potentially be completely lost under pressure from the dominant L2, then the critical period cannot be as privileged a language learning phase as the CPH predicts. In the samples of heritage Welsh analyzed in Part II, we will be looking for aspects of grammar accessed with more or less ease. Phonology is not tested, but instances of deviant morphosyntactic production will give us fodder for re-analyzing this position on the CPH, and perhaps provide some clues as to which parts of the grammar are best learned young and which are stored sufficiently enough to be accessed after the cessation of regular use in adulthood.

Chapter 3. L1 Attrition and Incomplete L1 Acquisition in Heritage Language

With the CPH challenged, and the storage strength of early acquired language in doubt, how are we to characterize heritage language? The emergent grammar is very obviously not simply frozen in a state of child-language in perpetuity. An initial assumption may be that, between the childhood exposure to the baseline language and the adult heritage grammar, the L1 was somehow “forgotten,” but with the added complication that childhood language knowledge can not now be assumed to have been acquired flawlessly at the outset, the picture begins to look far more complicated. There are in fact two distinct processes which may have acted in reshaping the resultant grammar of the heritage speaker.

Fundamentally, heritage language is a result of language shift, they are two sides of the same coin—one social and one grammatical. Much more on this subject will be explored in the Conclusions of this dissertation, but fresh from a consideration of the CPH, this chapter focuses on the grammatical consequences of language shift during childhood, and whether they should be termed incomplete acquisition or attrition. “Attrition” refers to the loss of a linguistic structure due to interference from another, dominant language or simply from lack of use. The structure had been acquired completely at some stage, but it was lost from the grammatical system over time. “Incomplete acquisition” describes a steady-state grammar in which the structure in question had not ever been fully acquired. These are simplified definitions, and there is room for debate about how these terms should be used properly, but they will serve as a starting point for the discussion of this chapter.

If language shift is a sociolinguistic phenomenon, in which language attitudes, choices, and motivation play crucial roles, heritage language is the actual grammatical result of that social process, reflected in the proficiency of its speakers. Important to both issues is that the language

switch occurs in middle childhood, during the previously discussed critical period, a time when the acquisition status of the first language is not known with complete certainty. Linguists continue to debate whether the native language is or is not fully acquired before adulthood, as we saw in Chapter 2. There are serious empirical problems as a result of this. It may not be possible to know whether the first language was fully acquired by the time of shift in order to claim that the divergent grammar of the adult heritage speaker is the result of attrition. That grammar could, on the other hand, be evidence of normal native language acquisition extending beyond childhood and well into adolescence, in which case an argument might be made that these heritage grammars were stunted mid-development at the point of shift. This is one of the most fundamental questions of heritage language research—is the deviant grammar of a heritage speaker to be classified as attrition or incomplete acquisition, and what does that tell us about the normal language acquisition process? We will see, however, that the distinction might turn out to be unknowable.

Much of the research discussed in Chapter 2 supports the theoretical position that the adult native grammar is not fully acquired before adolescence. (cf. Feofanov 1960; Lynch 2003; Nippold 1998; Smedts 1988; Thurstone 1955) This is one of the primary counterarguments to the CPH, and may also be an argument against the heritage language as L1 attrition position. If the first language is not fully acquired before the learner shifts to primarily acquiring and using a second language, then the resulting L1 grammar cannot be the result of attrition alone. Some of the missing or divergent structures in the adult heritage grammar are likely to be also missing or divergent in child grammar. This argument naturally gets stronger the younger the heritage speaker is at the time of her shift to the dominant language. Smedts (1988) showed that Dutch morphology had not reached adult norms even by the teenage years. Even as a first language, 7-year-olds showed only 14% mastery of Dutch derivational morphology, 13-year-olds 51% mastery, and 17-year-olds only 66% mastery. If this is the case, a speaker who ceased her

acquisition process during childhood, even as late as during the teenage years, can not be expected to control Dutch grammar as proficiently as native speakers who completed the acquisition process (whenever the end point of that may be). Even when her abilities were at age-level norms for acquiring the language natively, she was not yet at an adult level of proficiency.

Recall also the Korean adoptees discussed in Pallier et al. (2003) and Ventureyra et al. (2004) who seem to prove that the native language of children as old as nine years old can be entirely lost after removal to a new linguistic environment. These studies are some of the strongest evidence for the incomplete acquisition position, but, as with most of the topics under discussion in this dissertation, not all researchers have had such clear results, and so the debate continues. Fromm's (1970) case study of age-regression under hypnosis is an interesting example of the other side to this debate. A Japanese-American adult, with no recollection of ever having spoken Japanese, spontaneously produced that language after being hypnotically age-regressed to 4 years old. This must be considered strong support indeed for the positions which consider early storage to be paramount to language acquisition. I am inclined, however, to agree with the more recent conclusions of the research looking into adoptee language memory, which collected data from a greater number of subjects and found their Korean skills to be non-existent—though Fromm's case-study may be taken as a small bit of evidence of the great storage strength of childhood language exposure, if not its recall strength.¹

There is no a priori reason for incomplete acquisition to be the only source of divergence from native norms in the heritage grammar, however. Attrition of those pieces of the grammar that had been acquired to completion may be playing a role also. Studies which match heritage speaker subjects to normally acquiring children of the same age as the heritage speakers' age of shift, and find that those children do show mastery of a particular grammatical structure, are then

¹ The terms “storage strength” and “recall strength” will be explained in detail below.

able to evaluate whether or not that structure was likely to have been completely acquired by the heritage speaker at some point as well. If the adult heritage speaker does not show the same control as the children, then that linguistic information may have suffered attrition.

Polinsky (2008a) exemplifies this methodology with a study of heritage Russian speakers in the US. The grammars of the child and adult heritage speakers do not resemble one another closely enough to support the simplistic view that the heritage language of the adult was simply frozen at the age when acquisition stopped. Influence from the dominant language, in this case English, as well as from universal rules governing the possible forms of human language, over time, are presumed to shape the mental representation of that already incompletely acquired language. The resulting grammar is one which has been reanalyzed from the childhood linguistic exposure and shaped by the entire linguistic experience of the heritage speaker, including knowledge of the dominant language as well as any innate language forming asset (Universal Grammar). That reanalysis is itself a form of attrition—the heritage grammar diverges from that of the target language, but was presumably native-like before the period of language shift. More on the influences at work in the bilingual language system, the possibility of interference and transfer between languages, will be discussed as the particular subject of Chapter 4.

Evidence of attrition is usually sought in the language skills of bilinguals, but it is not exclusively a bilingual phenomenon. Attrition related to aging in monolingual adults has also been well studied and may potentially provide an informative comparison with incomplete acquisition, which, of course, can only occur in bilinguals. The modules of language found to decline most dramatically with aging are lexical retrieval and the production of complex grammar. Interestingly within the context of this project, these are areas of particular weakness in heritage language as well, as was discussed in Chapter 1.

Goral (2004) reviews several studies of language attrition suffered by healthy aging adults in an effort to relate this phenomenon to attrition in bilinguals, such as the heritage speakers of this dissertation. Studies intended to test the production ability of older speakers who have potentially suffered attrition generally consist of picture-naming tasks and a calculation of “tip-of-the-tongue” (ToT) states.² Picture-naming tasks are designed to elicit expected lexical items and to record the speaker’s speed of retrieval. A gradual decrease in lexical access is observed in speakers over 50 years old, but a sharp drop in performance on two of the picture-naming tasks was found for those over 70. Speakers in the over-70 group produce significantly more errors than those of all other age groups, i.e., they failed more often to recall the correct vocabulary item. (Nicholas et al. 1985) Frequency of ToT states has also been found to correlate with aging, but Burke et al. (1991) cautions that infrequent and non-recent use of these particular lexical items may have as much to do with the speakers’ poor recollection as general age-related language decline.

Theories about aging and the general deterioration of cognitive processes could, of course, explain these results which seem to show a loss of linguistic access, but there may be other causes as well. One variable in the Transmission Deficit Hypothesis (TDH) (Burke et al. 1991; MacKay and Burke 1990) is recency of use. This is posited as a factor in lexical retrieval speed under the conditions of normal monolingual aging, but may also play a role in attrition observed in bilinguals. The TDH postulates that, while connections between neural nodes become stronger with use, those connections are weakened when use decreases. This idea is similar to the Activation Threshold Hypothesis (ATH) of Paradis (2007), which posits frequency of use as the critical variable determining the ease with which something is retrievable. According to the ATH, frequency of use as well as recency of use affect the “activation thresholds” of particular pieces of

² A “tip-of-the-tongue” (ToT) state refers to a speaker’s temporary inability to access a lexical item which is, however, in her lexicon. (Burke et al. 1991)

language, which in turn determine the speed of access. But further research is warranted to determine whether the retrieval difficulties of aging adults are similar enough to those of younger bilinguals to allow the theoretical framework of one to transfer to the other. Furthermore, a difficulty common to all theories in this field is the trouble in isolating the real causes for the observed phenomena, even when theories predict the data. The detailed workings of the brain are still very much a mystery to us. The deterioration of aging cannot be assumed to be the same effect as the loss of language access in a healthy and younger brain assumed to be occurring under attrition.

A fundamental difference between L1 attrition in aging monolinguals and that of younger bilinguals is the absence of a L2 which is possibly influencing the L1 system. More about the bilingual mind will be discussed in Chapter 4, but the importance of the L2 in attrition studies warrants a brief comment here. Paradis' activation threshold is not only about the importance of frequent use to ease of access, but also the role of inhibition, or the act of suppressing unwanted information. The bilingual mind must ignore the grammar and vocabulary of the unused language when forming semantically equivalent utterances in the target language. Without this function of the brain, there would be no way to suppress all the knowledge that is stored in the mind when trying to recall a single fact, and to speak more than one language with any degree of fluency would be, presumably, impossible. In the heritage grammar, which operates under the dominance of the L2, those inhibition abilities have been weakened through lack of use. This effect may be directly responsible for any influence of the L2 on the heritage L1, both lexically and morphosyntactically, but inhibition of a L2 is not necessarily playing a role in the age-related monolingual attrition discussed above. Goral (2004) concludes her comparison of age-related and bilingual attrition with the following statement:

“It is conceivable that similar cognitive mechanisms and common neuronal changes underlie the attrition processes in both study populations, but there is currently insufficient data to support or refute such hypotheses.” (Goral 2004, 45)

Consequently, we must content ourselves here with trying to tease apart evidence of bilingual attrition from incomplete L1 acquisition, with little help from the field of monolingual attrition.

Paradis' Activation Threshold Hypothesis (ATH) has been rather influential in attrition research and deserves further explanation here. The ATH predicts that language disuse will lead to gradual language loss, that the most frequently used elements of the L2 will replace their lesser used L1 counterparts, that comprehension will outlast production abilities, and that vocabulary is more vulnerable than phonology, morphology, or syntax because items stored in declarative, as opposed to procedural,³ memory are more susceptible to attrition and interference from the L2.

(Paradis 2007, 121)

“This hypothesis proposes that an item is activated when a sufficient amount of positive neural impulses have reached its neural substrate. The amount of impulses necessary to activate the item constitutes its activation threshold. Every time an item is activated, its threshold is lowered and fewer impulses are required to reactivate it. Thus, after each activation, the threshold is lowered—but it gradually rises again. If the item is not stimulated, it becomes more and more difficult to activate over time. Attrition is the result of long-term lack of stimulation. Intensive use/exposure to one of the languages in a bilingual environment leads to a lower activation threshold for that language (i.e., it requires fewer resources), even in early, fluent, behaviorally balanced bilinguals.” (Paradis 2004, 28).

The “activation threshold” described here is an abstract concept representing the amount of effort required to access some piece of linguistic information. It is primarily a model predicting the access strength and storage strength of linguistic information in a bilingual mind. That level of effort is, most importantly, set by the amount of practice the mind has had in accessing that information recently. Put simply, the more some item, linguistic or otherwise, is accessed in the mind, the easier it becomes to access that item again in the short term. This is conceptually similar to the benefits of exercising one's muscles or of studying before an exam. The difference

³ Procedural memory is automated information, routinized and accessed implicitly. Declarative memory is stored consciously and accessed explicitly. (Bowles 2011, 250)

between declarative and procedural memory and the influence of the L2⁴ are important in explaining which areas of the grammar are more or less likely to suffer under attrition.

If we accept the ATH and allow that regular, continued use is fundamental to the ease of retrieval for a given linguistic item, then its application in the field of heritage language research is obvious. The lesser used language will gradually become more difficult to access. But despite this tidy theoretic package in which to wrap up our observations of heritage grammar, can we be certain that attrition is in fact the correct label? Experiments that are able to isolate attrition as the cause, as opposed to incomplete acquisition, are the best means of answering this question.

Polinsky (2011) tested heritage speakers of Russian, both child and adult, in relative clause comprehension and compared them with child and adult monolingual controls. It was predicted that if the heritage speakers struggled, they would more likely understand the subject relative clauses than the object relative clauses (following from the accessibility hierarchy (Keenan and Comrie 1977)⁵), and that if the child and adult heritage speakers deviated from the baseline (i.e. the target language) in the same way, incomplete acquisition would explain that deviation rather than attrition.

Because of the direct comparison with the child heritage speakers, any observed differences among the 4 groups Polinsky tested could be expected to differentiate attrition effects from incomplete acquisition in the adult heritage speakers. If the child heritage speakers have

⁴ L2 interference and the organization of the bilingual mind will be discussed at greater length in Chapter 4.

⁵ The Accessibility Hierarchy captures the crosslinguistic generalization in relative clause formation that if a language is able to relativize at a given position on the hierarchy then it will be able to at every higher position as well. For example, if a language only allows one position to relativize, it will be the subject; if it allows the indirect object to relativize, then it will also allow the direct object and subject.

Accessibility Hierarchy:

subject > direct object > indirect object > oblique object > possessor > standard of comparison (Keenan and Comrie 1977)

more native-like control of relative clauses than the adult heritage speakers, then incomplete acquisition of the relative structure is not the source of divergence, rather, the adult heritage speakers will be shown to have suffered attrition. Children comprehend all types of relative clauses by age 4 in monolingual environments. (Polinsky 2011, 307) The child heritage speakers were all older than 4, so, if incomplete acquisition were observed, it would only follow from the conditions of heritage language acquisition in particular, i.e., in this case, being exposed to the heritage language only at home. The results showed that only one group of speakers significantly deviated from the others in relative clause comprehension—that of the adult heritage speakers. And, as predicted, those adult heritage speakers performed far better with subject relative clauses than with object relative clauses, despite the fact that English, their dominant language, allows object-relative clauses.⁶ The child heritage speakers performed as well as the monolinguals. They had successfully acquired the structure under investigation by that age, supporting the claim that the process leading to an adult heritage grammar is in fact one of attrition, rather than incomplete acquisition.

Seliger (1989) presents a case study of a child bilingual who immigrated to Israel from the US at age 7. Observations of her two linguistic systems mixing after 2 years in the new linguistic environment are put forward as evidence in favor of what Seliger calls the “Redundancy Reduction Principle.” Her exposure to Hebrew began with the move, after which, we can assume, the girl’s L1 English, her heritage language in our terms, was no longer used. The family had also switched to using Hebrew in the home after their move, in order to ease the child’s transition to the new language. The primary claim of Seliger’s theory is that bilingual

⁶ This observation is of particular interest because it refutes the lay intuition that the influence of the dominant language is *always* the source of divergence observed in the proficiency of an imbalanced bilingual. These adult heritage speakers’ reanalysis of baseline Russian is not based on a borrowing from the dominant language grammar, rather, it is an independent simplification which follows from universal principles of human language formation. This is a topic which will be revisited often in Part II of this dissertation.

language systems undergoing attrition will not diverge from native norms in a random or unpatterned way. An L1 which suffers attrition will often take on properties of the L2 following from this principle:

Redundancy Reduction Principle (RRP): “If both languages contain a rule which serves the same semantic function, that version of the rule which is formally less complex and has a wider linguistic distribution (i.e. can be used in a greater variety of linguistic environments) will replace the more complex more narrowly distributed rule.” (Seliger 1989, 173)

The evidence from his study specifically focuses on the apparent simplification of relative clause formation in the child’s English after two years in the Hebrew, L2, environment. Her grammar, unlike those of the monolingual controls, does not allow any relative pronouns other than *that*, and treats *that* as a relativizing morpheme like *še-* in Hebrew. This not only reduces the lexical inventory of this speaker, but also changes the formal status of the relative clause, from a subordinate relative clause to an independent clause with attached relative marker. Closely connected to this formal distinction, the subject’s English relative clauses contain a resumptive pronoun⁷ (with the exception of subject relatives), like Hebrew but unlike English. (Seliger 1989, 180) Some examples from this study are provided here for clarification. In a grammaticality judgment task, the Hebrew-English bilingual (7b, 8b) and the native controls (7c, 8c) were given a sample sentence (7a, 8a) and asked to make it better. Attrition is clearly evident in the way described by Seliger in the heritage speaker’s sentences (7b and 8b).

7a. There is the man who I talked to you about him.

7b. There is the man that I talked with you about him.

7c. There is the man who I talked to you about.

⁷ A resumptive pronoun restates a reference which was made previously in the sentence. (e.g. “This is the boy I told you about *him*,” which happens to be ungrammatical in English, but may not be in other languages.)

- 8a. The man who the dog bit him is angry.
- 8b. The man that the dog bit him is angry.
- 8c. The man who the dog bit is angry.

(Seliger 1989, 179; Seliger's numbering)

These data support the claim that the child bilingual undergoing attrition of her L1 is suffering a transfer effect—the simpler, more broadly applicable and less cognitively taxing linguistic process is replacing the less efficient rules of English relativization.⁸ The Hebrew rule is the more efficient one because it allows the same clause structure to be used in conjoined as well as independent sentences. (Seliger 1989, 182) The presence of Hebrew in the bilingual system is clearly contributing to the particular shape of this simplification, therefore, which then differs fundamentally from the process of monolingual, age-related attrition. This simplification must be interpreted as attrition rather than incomplete acquisition because of the observable order in the reshaped bilingual grammar—had the L1 simply been incompletely acquired, this pattern of redundancy reduction would not be detectable.

The research which supports incomplete acquisition as the process resulting in heritage language is convincing as well, however. Also referred to as “interrupted acquisition,” this is the view which seems intuitively more accurate to describe the state of a grammar shaped by sudden language shift at a young age. For those heritage speakers who grew up with the heritage language as the home language, however, the “incomplete” in incomplete acquisition is more abstract. The bilingual child's linguistic exposure has been divided between the two languages. In balanced bilinguals, this split exposure is actually quite quickly resolved and the two languages develop essentially as they would for a monolingual child. (Montrul 2008, 94-97) For childhood

⁸ Transfer will be discussed at greater length in Chapter 4.

heritage speakers, however, the exposure to the heritage language presumably never reaches a level high enough for full and successful acquisition of that language. The “incomplete” in this case is not a sudden interruption of exposure after language shift, but rather a sustained insufficiency of input and use over time. The burden is on the researcher, then, to find the ways in which the bilingual with reduced exposure and the sudden language shifter are both heritage speakers, with similar grammatical traits and language classroom needs.

Several analyses of incomplete acquisition as a possible outcome of insufficient exposure have focused on late L2 acquisition and the importance of the “critical period” to successful outcomes, (Sorace 1993; Schachter 1990; Bley-Vroman 1989) but Montrul (2008) convincingly argues for incomplete grammar to be a possible outcome of L1 acquisition as well, even in cases when exposure began during the so-called critical period. A study of incomplete L1 Korean (Flege et al. 1999) evaluated the pronunciation of 240 L1 Korean speakers who differed according to the age at which they migrated to the US (between 1 and 23 years old). An evaluation of pronunciation was performed by native Korean speakers who gave ratings of perceived foreignness in the Korean-Americans’ accents. The speakers’ age of arrival was found to be a significant predictor of these accent ratings.

However, you may recall that the Flege et al. study was also discussed in Chapter 2 as evidence against the Critical Period Hypothesis. The accent rating test was accompanied by a grammaticality judgment test on which the subjects’ performance also decreased gradually with age of arrival—but that effect could be negated if factors associated with age were controlled for (i.e., amount of education in Korean and amount of regular use of Korean). Once these were included in the calculation, the subjects’ age of arrival was no longer significant as a predictor of grammaticality judgments. The age of arrival did, however, remain significant for some of the subjects’ *accent* ratings. For those subjects who had left Korea before age 12, age of arrival was a significant predictor of accent rating, but was no longer significant if the age of arrival exceeded

12 years old. This can be taken as evidence of a critical period for phonology at least, or, perhaps less controversially, as evidence that the process of natively acquiring Korean phonology requires at least 12 years. The heritage speakers of the study had *incompletely acquired* this component of the Korean language because they experienced language shift too early. This is a clear example of the different domains of a language having separate requirements for complete acquisition by the heritage speakers.

Montrul (2008) evades the distinction by considering incomplete acquisition to be a possible product of L1 attrition as well as the result of shifting too young. “Incomplete acquisition” simply describes the endstate of the grammar. She also re-defines the critical period as a time exceptional not only for the brain’s sensitivity to language acquisition, but also as a period during which linguistic structures which may have already been acquired are particularly vulnerable to attrition. The proficiency of a child, therefore, does not signify a permanent competence if reduced use and exposure are significant enough to induce attrition during this critical period. The resulting grammar is what she defines as “incomplete acquisition,” a term applicable only to the final, steady state of the grammar. (Montrul 2008, 123)

Montrul’s hypothesis about a maturationally determined period of language (loss) vulnerability is supported by Pecenek’s (2010) case study of two boys, ages 5 and 8, who were learning Italian as a L2 after emigrating from Turkey. The older boy was able to maintain his Turkish in the new linguistic environment but the younger boy had more difficulty using Turkish after one year in Italy. The younger brother would not have firmly acquired the L1 grammar to the same extent that the older brother had at the time of the move, and because the language had not reached a steady level of proficiency, it seems, his was the more likely to suffer under attrition in the changed linguistic environment. This is the sort of situation in which teasing apart the differences between L1 attrition and incomplete L1 acquisition is especially problematic. After one year in Italy, the older of the two brothers was the stronger Turkish speaker, but he was

also less comfortable in Italian than his younger brother. This could be taken as support for Montrul's position that the younger the shift, the more vulnerable to attrition, but the study may also be interpreted as evidence of that the grammar was not complete at this age anyway.

The greatest of the younger boy's weaknesses in Turkish are lexical in nature. His proclivity to code-switch is a lexical issue, and one which Pecenek explains as context-based—the boy learned about certain concepts in his L2, Italian, only and therefore only knows the Italian terms, not the Turkish. As was discussed in the previous chapter, lexical knowledge is not of particular interest in language acquisition because it continues throughout the lifespan and is declarative rather than procedural knowledge. Pecenek also points out, however, that the difference in age of language shift in the two boys meant that they had not reached the same level of “mastery in semantic and pragmatic domains.” (Pecenek 2010, 287) This is clearly not an issue of the information suffering under attrition. It was never there in the first place if “mastery” is a criterion necessary for full acquisition.

When the evidence is certain that the piece of linguistic information has not been learned before shift, as with the younger brother's semantic and pragmatic awareness, then incomplete acquisition is the cause. Where it can be shown that speakers at a certain age do possess the linguistic information of interest, but heritage speakers of that language fail to produce it even if their age of shift was subsequent to that supposed age of acquisition (as in Polinsky 2011), then the explanation seems to be attrition. But if “incomplete acquisition” can describe the post-attrition steady-state grammar as well, as Montrul would have it, then the distinction is almost impossible. Without any certainty either way, discriminating between these theoretical causes is entirely muddled, and the most accurate description of the state of the grammar may mean that attrition and incomplete acquisition have both impacted the heritage grammar. Given Montrul's reformulation, perhaps the question of a “critical period” should be reframed as a question of the

critical amount of exposure necessary to set the child's grammar safely beyond the point of particular vulnerability.

If the difference between attrition and incomplete acquisition, however, relies on the researcher being able to identify the exact mental linguistic state of the child speaker, then it is not a distinction which has yet been proven. It can be said that language is continually being acquired, or at least that it requires constant reinforcement—that it is a fluid skill, and not one that can be learned fully once and always recalled. This is certainly the experience reported anecdotally by foreign language learners, but may be true for L1 as well. If a linguistic structure was observed in the speech of a child just before language shift begins, we cannot really be certain whether that structure has suffered attrition or had simply never been firmly integrated into her linguistic system. Even while Polinsky (2011) argued for the attrition explanation over incomplete acquisition, the inherent difficulty in separating the two is acknowledged:

“The longer answer to this question will probably take many years to develop because answering it amounts to mapping out the entirety of natural language: which aspects are robust and which are more fragile, which can be learned with greater or lesser difficulty, and so on.” (Polinsky 2011, 306)

But an important point to make here is that an argument for attrition is not necessarily an argument against incomplete acquisition. The two may be complementary and overlapping processes, neither an accurate description of the heritage language phenomenon on its own.

The frequency of particular linguistic information in the input might then be significant in determining early language proficiency—but reifying the concept of “frequency” as a tangible variable is not as simple as it might seem. Frequency does not actually prove to be such a decisive piece of the puzzle. If Paradis' activation threshold is relevant not only to production but also to comprehension, then merely hearing an item and understanding it will contribute to lowering that threshold. This hypothesis supposes an important role for early linguistic input in the process of

language acquisition and storage. Input can be language addressed toward the child or other speech overheard in her environment. Despite one of the foundational theories of modern linguistics, that human beings create language far more quickly and efficiently than could be possible if the infant mind were building that system from scratch rather than using an innate linguistic faculty, (cf. Chomsky 1965) exposure to a certain amount of input is clearly necessary for successful outcomes. The unfortunate language deprivation cases presented in Chapter 2 are testament to this fact. But just how much or how little linguistic input is required, and the nature of that input, is a debate that has filled volumes on its own. I will only very briefly touch on some of the relevant points here.

In the context of incomplete acquisition, the question arises of why it takes so long to reach native norms and how it can be that speakers exposed to their heritage language for as many as 9 years or more are not fully proficient, as was seen in the Pallier et al. (2003) and Ventureyra et al. (2004) studies. To say that the *amount* of linguistic exposure is paramount in the bilingual acquisition debate is a rather blunt and uninteresting argument. Of course it is the case that a bilingual home will be splitting the child's linguistic exposure between the two languages and, consequently, studies have shown that there is a slight delay in the very earliest stages of even balanced bilingual language production, though it is quickly resolved. (Ben-Zeev 1977; Gathercole 2002; Hakuta 1987; Thordardottir 2011) This situation describes many of our heritage Welsh speakers and so will naturally have affected their grammars. Following from that research, some of our heritage Welsh speakers' deviation from native speaker outcomes can be credited to the split-language home environment, but that cannot explain everything. They do not all come from a bilingual household, nor would this account for all the deviation in the grammar of those who do. We also cannot assume that home language use is a universal quantity, constant across families and easily measured. What does "amount of input" actually mean? "Input" as a concept eventually breaks down into the frequency with which the learner is exposed to different

grammatical structures and lexical items. “Frequency,” then, must be the variable that is really at issue here. But frequency is, itself, a poorly understood concept. A sharp criticism of this problem is found in Yang (2007): “Frequency effects is simply the professional’s preferred term for this pedestrian intuition: the greater the exposure, the greater the imitation.” (Yang 2007, 389)

The difficulty comes from translating that intuition—that more exposure means better understanding and storage—into a describable and quantifiable cognitive process. The difficulty comes from trying to determine the steps in the process of remembering an item. If several exposures are required for a linguistic item or structure to be remembered (and therefore be produced and comprehended) how is the mind recording those instances of exposure until the threshold is reached after which it will be remembered? Are subparts of this information being stored and added together after each exposure? Is it a process of *learning* after one exposure but refining with each subsequent exposure? Is there some ongoing tally of instances in which the information is heard, counting up to some threshold? Complicating these already muddy, and unanswered, questions is the reality that those instances of exposure will inevitably be slightly, or even significantly, different each time. Grammatical structures are in the abstract realm of morphosyntax, where the vocabulary used in those structures is always changing, but the child is able to learn that abstraction nevertheless. If frequency itself is something the learning mind is keeping track of, it is no more than counting. This is not the same as learning, which must be a much more flexible process. This is especially so with language, which is a system rather than a collection of facts, in which the simple words actually uttered belie the complexity of the grammar in their seemingly countable instantiations. (Roeper, 2007)

Polinsky (2005) was able to use known word frequencies in adult native speech in order to study their possible effect in a more scientific way. Heritage Russian speakers were tested in their comprehension of word class distinctions (such as noun, verb, and so on). Interestingly, this study found that frequency was not the strongest predictor of her heritage speakers’

comprehension. The findings instead suggest that other factors, such as the class of the words itself, may be playing a larger role. Complicating the issue, as Polinsky points out, is the caveat that frequency counts will inevitably be different from adult norms in the language directed at children, and therefore also the input of heritage speakers. We may not ever be able to quantify frequency effects without doing individual, long-term case studies—an infeasible prospect.

Further evidence also shows that the frequency of lexical items can not be the primary factor in their being acquired. If that were the case, the most frequent items would be learned first. But the most frequent lexical items in English, for example, are function words (e.g., *and*, *is*, *not*, etc.), and they rarely appear first in the child's speech. (Gathercole and Hoff, 2009) Djurkovic (2007) similarly argues that the order of acquisition of grammatical constructions in Serbian goes from simplest to more complicated, with less regard for the frequency of those structures than the “pedestrian intuition” of frequency effects would suppose. So what we are left with, again, is a loose understanding of the cognitive processes of language acquisition deduced only from the observation of their results. Input and frequency must be important, but they do not play a simple role by any means.

If we suppose that linguistic input continues to reinforce and refine grammatical structures, as well as to affect a speaker's ever-changing lexicon, then there can be no easy way to pin down the end of acquisition at all. In the case of vocabulary, we have no reason to believe acquisition ever stops. Even in the domain of morphosyntax, the acquisition process goes on as long as input reinforcement is required, and that may take as long as 20 years or more. (cf. Smedts 1988) Language is not a knowledge learned the way facts are, but instead is a system of which the foundations can be acquired in childhood but mastery takes a far longer period of continued use. Theoretically, language acquisition may continue well into adulthood if reinforcement is necessary for solidifying the grammar and is considered a part of the acquisition process, even past the point when adult native norms are ostensibly comprehended and produced.

Certainly, the CPH can not be maintained under this position, but there are implications to the incomplete L1 versus L1 attrition debate in heritage language as well. Blurring the upper bound of what age range determines complete and successful acquisition renders it nearly impossible to establish the effects of incomplete acquisition for those heritage speakers who shifted before well into adulthood.

An area of research outside of linguistics proper which is obviously parallel to attrition studies is that of the psychological basis of forgetting. Ecker (2004) reviews some of the more prominent theories in the hopes that they might offer some insight on the problem of defining attrition once and for all. Memory is made up of three components: encoding, storage and retrieval. Encoding is the initial processing of input, its understanding and computing by the brain. Storage is the next step in the process of remembering a piece of information, in which the item is put away in the memory for future access. Retrieval, as it sounds, is the process of recalling that information from memory for repeated use in the future. The process of encoding as a brain function should be assumed to be healthy and normal for the typical heritage speaker, and we've already seen how the ATH describes a weakened retrieval mechanism, affecting the ability of the heritage speaker to access known linguistic information, so what's left to discuss is this idea of "storage strength."

The CPH fundamentally relies on the idea that storage is inherently more efficient and lasting if it is done during childhood. This also privileges storage as a determining process in language acquisition. We saw in the previous chapter that the CPH probably over-emphasizes the importance of that specific learning period, but recall the summary of Krashen et al. (1979) which stated that an earlier start to the acquisition process yields better long-term outcomes. (Krashen et al. 1979, 573) This may ultimately come down to a question of storage strength. However, this over-simplifies the real issue. Information learned early also tends to be information used frequently over time. The strength of the initial storage cannot usually be separated from the

strength gained from frequent retrieval. Assumptions about the inherent strength of early storage also overlook the examples we have of the total loss of early language, such as Pallier et al. (2003) and Ventureyra et al. (2004) and their work with Korean adoptees in France. The apparent weakness of language storage in those subjects suggests that continued, rather than early, use is as essential to storage strength as it is to retrieval strength.

It is not surprising to learn that many questions remain open in the psychological understanding of forgetting as well. Is it the loss of information, or just the loss of access to that information? Does information remain stored in the mind even when the individual has “forgotten” it? Forgetting has been described in Freudian terms as a process of suppression or repression, it has been emphasized as a process of distortion of real memory affected by personal biases, it has even been described as the evaporation or decay of information, as though such knowledge had a physical state in the mind. First formulated in 1941, Jakobson’s Regression Hypothesis (RH) postulates that information is forgotten in the reverse order that it is acquired. (Keijzer 2004) Language learning was thought to be the ideal process for this model, in which childhood language acquisition is layered and each stage is built upon the previous. Forgetting language, then, is the peeling away from more to less recent grammar and vocabulary. This would predict that language that has suffered attrition looks like child language, but we know that this is not the case. Heritage speakers are a perfect counter-example to the RH. Adult heritage speakers never produce language that could be mistaken for child language. This is due partially to the nature of adult topics and world understanding, obviously producing different language to describe it, but the heritage grammar also does not look like a regressed, simple sentence formulator similar to child speech. We will see in Part II of this dissertation that our heritage Welsh speakers still produce function words, for example, that are invariably still in operation even for those speakers with very small vocabularies, which, incidentally, do not resemble child

vocabulary either. Without sufficient supporting evidence, the RH has fallen out of favor in psychology as well as linguistics.

The actual mechanisms of the brain which are controlling the flow of information are, unfortunately, poorly understood. The activation threshold is itself only a metaphor, though it is based on the observed transmission of signals between neurons. (Köpke 2007) If we look to these somewhat tangible and measurable workings of the brain for an explanation of the intangibles of knowledge we come to some more compelling, and possibly helpful models of forgetting. The ATH and theories like it, that are built on the mechanical workings of neurons are the most useful for us. Elimination of information is not a helpful, or empirically accurate, way to think about forgetting. Rather, a slowdown or failure to access information can be described in terms of signal strength between neurons and as a product of lack of use. This can either be caused by new information being accessed more frequently or, particularly for our discussion, from a L2 being accessed more frequently, to the detriment of access to the L1.

But we need not stray too far from the main issues under discussion here. The complementary concepts of information-forgetting and language-attribution can be usefully compared in one more way—the idea of cue dependency to successful memory access is very relevant to heritage language also. If labels, or cues, are available to the mind in order to find information quickly among its large collection of facts and processes, then recognition of those cues is crucial to successful access. Cue availability would depend on the consistency of the individual's internal states, his feelings and mood, as well as on the external environment in which the learning and retrieval of information take place. A change in context of use can reduce the availability of those “labels” which cue access to the desired information. (Ecke 2004) For our heritage speakers, this would translate to the importance of social context to the success of access. Speakers who are accustomed to using a language only in the home or among close friends who are suddenly called upon to use Welsh to speak about new topics or in new social settings cannot

be expected to recall the heritage language as well as they would their dominant language, the language they usually “cue” up for these situations.

More than the linguistic context alone may trigger interference, in fact. Chinese immigrants in America have been found to be affected by visual context cues as well. Zhang et al. (2013) tested the English proficiency of recent Chinese immigrants in the US under priming from their L1. Speaking to a Chinese, as opposed to American, interlocutor hindered fluency (as it was determined by the impressions of judges), as did exposure to iconic symbols of Chinese culture. In recognition and naming tests, those speakers were also affected by Chinese icon priming. Clearly, the processing of an L2 can be disrupted by heritage culture priming, and it is not a stretch to assume the same occurs in the heritage language of L2 dominant speakers. A particular language is stored with appropriate context cues, both linguistic and visual, and consequently will be accessed with more difficulty when processing occurs contrary to those cues. Interestingly, for our heritage Welsh speakers, those cues will vary by individual. For some, the language will be tied closely to family and time spent in Wales, but for others, the cues may be entirely London-based, associated with a friend group or activity. A heritage Welsh speaker who only uses the language while watching rugby on television at a certain London pub will not necessarily experience a positive priming effect when speaking with Welsh family. For that speaker, going to Wales or speaking with relatives in Welsh may be more difficult than speaking with a stranger who happens to be present at that pub in London and wants to discuss rugby. Fortunately for our heritage Welsh speakers, the situational priming of a heritage language can gradually change if the speaker comes to use the language more in new contexts.

The ATH also makes reference to the difference between procedural and declarative memory. (Paradis 2004, 7-10) Procedural memory is what a speaker uses when forming a sentence, intuitively placing the nouns and adjectives in the correct order and using the correct tense of the verb. It is the implicit knowledge of the language. The declarative memory is what

can be learned explicitly, the lexicon and the metalinguistic knowledge that was taught in school to typical native speakers of a socially dominant language. Implicit, or procedural, knowledge is much more fundamental to language. The language of young children is exclusively implicit, and explicit, declarative language skills emerge only later and continue to develop throughout the lifetime to a greater extent than implicit skills. The parts of language that are most likely to suffer attrition are those sustained by declarative memory, i.e., the lexicon. (Bolger and Zapata 2011) This is also the area most likely to suffer in the L1 from interference from the L2, (Paradis, 2007) and, from Chapter 1, we know that vocabulary does seem to be the most vulnerable to being “forgotten” by our heritage speakers. The ATH assumes that procedural memory has far greater storage strength than declarative memory. Whether the terms “procedural” and “declarative” actually describe a fundamental difference of type of memory or whether they simply divide what is probably a spectrum of how successfully something has been learned—i.e., to the point of being automatically recalled or not—is beyond the scope of this discussion, but it is a distinction that accurately predicts what we observe in heritage language, that vocabulary suffer the most, followed last by the basics of word order and pronunciation.

Regardless of the attrition or incomplete acquisition debate, never is the process of attrition or the result of an incompletely acquired grammar simply a question of more or less language. The metaphor that heritage speakers seem to have pieces of their language missing belies the real, and very interesting, condition of that language. The resulting grammar is theoretically a functional and possible language, even if it is only slowly accessed by the speaker. The divergences from native speaker norms show signs of either, or both, innovative reanalysis or interference from the dominant language. We saw in the Seliger (1989) study discussed above that the Hebrew relativization process had been extended to the eroded English L1, but also in the Polinsky (2011) study that English L2 does not always transfer positively into the eroded Russian heritage language system. There must be factors at work beyond simply the process of language

shift and/or the bilingual state of mind which are affecting how and where the grammar diverges from expected norms. Incomplete acquisition/attrition may explain *why* some heritage systems lack certain linguistic structures, having suffered reduced exposure before the normal age of complete acquisition of that structure, or because of language shift at some point after the age of successful production but before the age of mastery—but how does the heritage speaker communicate around these “gaps” in the grammar?

One of the most interesting properties of human language globally is that all known languages abide by certain universal principles.⁹ If these universal principles of language are also observed in the restructured L1 system under attrition, then we have further evidence that not only do these universals describe the shape of full community languages, but that they also constrain the shape of any possible human language. The grammars of the speakers of heritage Russian studied in Polinsky (2011), as well as the Hebrew-dominant child bilingual discussed in Seliger (1989), both followed the Accessibility Hierarchy (Keenan and Comrie 1977) in their construction of relative clauses, despite their very different personal language histories. The subject of the sentence is the only possible candidate for relativization if the grammar of any language allows for only one, whether that language is the complete L1 of a native speaker or an attrited and reanalyzed heritage language.

The frequency of a structure or lexical item in the linguistic input can not be maintained as a principal motivating factor in its retention by the heritage system, but an argument can be made for more transparent and easily acquired grammatical structures being retained over opaque ones, and that ease of acquisition almost certainly relates to linguistic universals and Universal

⁹ Linguistic universals are patterns that are observed across natural languages regardless of contact or influence. These patterns potentially reveal generalizations about an innate human capacity for language (i.e., Universal Grammar) and the biologically determined ability of the mind to organize and process this kind of information. (cf. Chomsky 1965, 27-30; Comrie 1989; Greenberg 1963; Greenberg 1966)

Grammar. Seliger (1989) compares the complexity of relative clause formation in English to the simplicity of the Hebrew system and finds that the more complex system is marked crosslinguistically—it is typologically less common across world languages. The predominance of languages which allow fewer relativizing structures is predicted by the Accessibility Hierarchy (a linguistic universal), which also predicts that relativizing structures will be absent in the heritage grammar after attrition according to a predetermined order. This is not to say that every individual's mind is computing the typology of each linguistic structure, but that related to ease of acquisition is this concept of universality. Ease of acquisition and its role in possibly shaping the heritage grammar will be revisited in the research presented in Part II of this dissertation.

Lexical semantics is also very susceptible to loss in heritage language, as well as in age-related attrition. Olshtain and Barzilay (1991) interviewed American immigrants in Israel, who had continued to use their English L1 as their primary language despite near-native control of Hebrew and 10 to 20 years of residence abroad. These L1 English speakers were found to have weaknesses in the area of word meanings. Recollection of infrequent, specific nouns in English was found to have suffered attrition when the participants were pressed during directed semantic searches. (Olshtain and Barzilay 1991) In a task much like that which has been put to the heritage Welsh speakers to be discussed in Part II of this dissertation, the American-Israeli bilinguals were asked to narrate the story told through the pictures of Mercer Mayer's *Frog, Where Are You?* children's book. The participants paraphrased or code-switched rather than successfully recall the specific English nouns of what was pictured in the story. Especially problematic were the words *pond* and *gopher*. The particular circumlocutions of the subjects are discussed at length in the study, but here we need only note that the difficulty with the lexicon is expected from the insight gained from the ATH and Paradis' description of the vulnerability of declarative memory. Without consistent use, infrequently recalled nouns such as these would become extremely difficult to draw from memory, though likely not lost from storage.

The same difficulty with lexical retrieval was found in a longitudinal case study in which the personal letters of an aging German L1 and English L2 speaker were examined for signs of lexical loss. (Hutz 2004) The findings show that, in this domain at least—the metalinguistic, literary mode—the morphosyntax of the speaker remained stable far longer than the lexicon, where English loanwords were frequent because of their American cultural context. In addition to code-switching, the speaker extended the meanings of words in the L1 under the semantic influence of the L2, which is evident both in her calquing of English phrases into German and in her selection of L1 lexical items which are similar in phonology, though different in definition, to her intended meaning in English (e.g., *schmal* ‘narrow’ to mean ‘small’; *gültig* ‘valid’ to mean ‘guilty’). (Hutz 2004, 198)

Current theories locate the particular vulnerability of a language under attrition at the interfaces between syntax and the other component systems of grammar. (cf. Sorace 2011) It is at these junctures that transfer from the dominant language into the heritage language is most likely to occur. In particular, Tsimpli et al. (2004) reports on the vulnerability of L1 syntax to attrition under L2 influence at the Logical Form (LF) interface, “where semantic and discourse-related features which are represented in the syntactic structures become available for further processing in central cognition.” (Tsimpli et al. 2004, 263) L1 Greek and Italian speakers who had acquired English as an L2 were tested on their production and interpretation of preverbal and postverbal subjects in their L1, and were found to place their subjects preverbally more than would the controls. This was presumed to be a result of attrition at the syntax-LF interface and following from the fact that English does not allow postverbal subjects. L1 attrition, then,

“involve[s] interpretable features that are linked to parametric choice that differs between the L1 and the L2. In this way, an interpretable feature that is specified in L1 in a particular syntactic structure will become unspecified due to the absence of a similar interpretable feature in L2 in the same syntactic context.” (Tsimpli et al. 2004, 263)

Cuza and Frank (2011) examines the effect of transfer from English to heritage Spanish in the comprehension of double-*que* questions. The investigators propose that English is affecting these speakers' Spanish at the syntax-semantics interface, where even highly proficient bilinguals are unable to perceive the semantic shift introduced by the double-*que*. Bolonyai (2007) examines the incomplete Hungarian of six Hungarian-English bilinguals. She argues that rather than attributing the morphological errors of these bilinguals to the fossilization of the L1 grammar or to an incompletely acquired, immature system, the consistent trouble observed in these heritage grammars can be blamed on a mapping problem between syntax and lexico-semantics, where the morphology is spelled out. In particular, her subjects seem to be mapping the semantics of English *have* onto the Hungarian *van* and using it like a light verb in the absence of the morphology Hungarian would naturally use.

Interface vulnerability of this kind has also been noted for adult L2 learning where the mapping of abstract syntactic structures to their concrete morphological representations can remain an obstacle even in highly successful bilinguals. (White 2003, 201) Gabriele and Canales (2011) tests the interface hypothesis with L1 Spanish and L1 Japanese learners of English. Theoretically, the difficulties at the interfaces should persist regardless of a structure's similarity to or difference from the L1. The subjects were given a task which tested the acquisition of information that passes between the syntax and pragmatics interface, in this case, the difference between the simple present and the present progressive in English. Indeed, the same pattern of difficulty was observed in both sets of learners. For those who were L1 speakers of Spanish, the similarity of this structure in the L1 did not facilitate the learning process. From this research, we can predict that the particular vulnerabilities of heritage language under attrition will manifest at interfaces. In particular, the syntax and its communication with other components of the linguistic system seems to be a recurring source of divergence from native norms.

This chapter has presented the potential distinction between incomplete L1 acquisition and L1 attrition as they relate to heritage language, but has also presented several predictions about their respective effects on the bilingual grammar and some possible frameworks with which to describe heritage language phenomena. At this point it may be impossible to determine whether the heritage grammar is the result of attrition or of incomplete acquisition with absolute certainty, though the differences of the two are perhaps less significant than they may have appeared at the beginning of this chapter. The important conclusion to draw from this discussion is that both processes are influencing the heritage grammar throughout the lifetime of its speaker.

“Incomplete bilingual L1 acquisition may precede or co-occur with attrition, the erosion or restructuring of the L1 in extensive contact with the L2. ... When this happens, linguistic outcomes of incomplete acquisition and those of incipient attrition may be rather difficult to distinguish.” (Bolonyai 2007, 4)

It may be the unique combination of these two processes, neither of which is sufficiently explanatory on its own, which is the defining experience of the heritage speaker. Both positions have something to contribute to the study of heritage Welsh presented in this dissertation, but only their combined effects can describe the heritage grammar completely.

Chapter 4. Bilingualism and the Heritage Speaker

“It is, of course, an advantage for a child to be familiar with two languages: but without doubt the advantage may be, and generally is, purchased too dear. First of all the child in question hardly learns either of the two languages as perfectly as he would have done if he had limited himself to one. It may seem on the surface, as if he talked just like a native, but he does not really command the fine points of the language. Has any bilingual child ever developed into a great artist in speech, a poet or orator? Secondly, the brain effort required to master the two languages instead of one certainly diminishes the child’s power of learning other things which might and ought to be learnt. ... The worst of the system is, that instead of learning things necessary to us we must spend our time and energy in learning to express the same thought in two or three languages at the same time.” (Jespersen 1922, 148)

Until midway through the twentieth century the assumption had been that bilingualism was a cognitive disadvantage. So-called “intelligence tests” became popular in the twentieth century, particularly after the U.S. army used such tests on draftees at the outbreak of the First World War. (Romaine 1989) But more commonly these tests were used by prejudiced researchers in order to test the abilities of immigrant populations. In the US, Henry Goddard (1917) went so far as to recommend to Congress that testing facilities be present at all ports of entry into the country in order to exclude “feeble-minded aliens.” Of particular interest to this dissertation, a famous case of the use of intelligence testing against bilingualism is Saer’s (1923) study of Welsh and English in Wales. He studied 1,400 bilingual children in five rural and two urban areas, and claimed to have found a correlation between lower IQ and bilingualism. He also proposed that urban children in Wales were better able to resolve their emotional conflict between the use of Welsh and English at an earlier age than were rural children, who were handicapped by their dominance in Welsh, which he considered the inherently poorer language. This study, however, is problematic for its methodology and statistical analysis, as well as for its poorly drawn conclusions. The correlation Saer saw existed only in rural areas, and not among bilingual children in urban areas. The fact that the testing was done in English (an egregious bias)

disadvantaged the rural bilinguals for whom English was the weaker language. Similar results were reported in another study comparing monolingual (Anglophone) and bilingual Welsh children conducted by Smith (1923), and many of the same criticisms hold against that study as well. Smith's reasoning seems almost circular, testing the English skills of the bilingual children and then judging them to be weaker in that language than the monolingual children, without taking into account the fact that their stronger language was Welsh.¹ It was no wonder they spoke English less proficiently than their monolingual counterparts, but to extend that into a judgment about intellect reveals nothing but the prejudices of the time.

Bilingualism research has come a long way since the days of these studies and their biases. We now understand that it is more likely the natural state of the human mind to be in command of more than one language, even to move fluidly between them in a single conversation with fellow bi-, or multilinguals. (McCloskey 2001, 20-21) Speakers of multiple languages, in fact, seem also to benefit from a cognitive flexibility that appears to be concomitant with the bilingual mental system. The fallacy of the child's scarce mental resources has rightly given way to discussions of dual language immersion in primary schools and early L2 exposure, and to the recognition that very gifted language artists, indeed, may be bilingual.²

Once the belief that bilingualism is a handicap had been shed, even early studies into the mental abilities of this population found that bilingualism proved to be an advantage on verbal as

¹ These reports are reminiscent of the Reports of the Commissioners of Inquiry into the State of Education in Wales (1848), commissioned by the British government and known in Wales as the "Treachery of the Blue Books." The conclusions of the Commission equated the Welsh language with ignorance, poverty, and low-status by calling it a barrier to the moral progress and commercial prosperity of the Welsh people—because they were in ignorance of the world which existed around them in English. The obvious logical gap in this assessment was the fact that the language was first socially and economically oppressed by the English, which was the real cause of those disadvantages rather than any intellectual hindrance of the language itself. (Jones 1993, 547)

² Examples include the English language author, though native Polish speaker, Joseph Conrad, and the native Russian speaker Joseph Brodsky, who wrote in both English and Russian.

well as non-verbal IQ tests. The social climate of Peal and Lambert's (1962) seminal study was very different from the Welsh examples discussed above. In 1960s Canada, when the Official Languages Act of 1968-9 was on the horizon, the importance of bilingualism on the political scene was already obvious. The audience of their study was a population of concerned middle class parents who were still wary of the possible harm of bilingualism to the cognitive development of their children. (Romaine 1989, 103) These researchers were careful to administer the intelligence tests only to subjects whom they considered balanced bilinguals, and those subjects were found to perform better than their monolingual, age- and socio-economically matched, peers. The bilingual children performed particularly well on the subtests requiring mental manipulation and reorganization of visual patterns, which is not an area intuitively related to language. At the time, their conclusions were quite significant, culturally as well as academically.

“Intellectually [the bilingual's experience] with two language systems seems to have left him with a mental flexibility, a superiority in concept formation, and a more diversified set of mental abilities, in the sense that the patterns of abilities developed by bilinguals were more heterogeneous. It is not possible to state from the present study whether the more intelligent child became bilingual or whether bilingualism aided his intellectual development, but there is no question about the fact that he is superior intellectually. In contrast, the monolingual appears to have a more unitary structure of intelligence, which he must use for all types of intellectual tasks.” (Peal and Lambert 1962, 20)

Everything we have said about heritage speakers has been about their unique qualities, neither exactly a native speaker nor a second language learner. But it is also important not to overlook the fundamental similarity either—heritage speakers are a kind of bilingual also. Along with this characterization comes all the complications of using a term like “fluency,” which is usually determined by a monolingual norm, in describing the dual language systems of our heritage speakers. The bilingual mind, and its organization of linguistic knowledge, has been shown to be different from the monolingual mind. The organizational properties used in keeping the languages distinct, while still understood to serve the same communicative purpose, if not

entirely synonymously, extend beyond the languages themselves. The language system is more than the sum of its parts, and with that come certain cognitive advantages. But the separation between the languages is not absolute, and some evidence of the occasional blurring of languages is observed even in the most proficient of balanced bilinguals. The difference between these bilinguals and our heritage speakers will only be seen after an examination of the uses and fluidity of the balanced bilingual's mixing as compared to the inadvertent interference evident in the heritage system (which will be detailed in Part II of this dissertation). The heritage speaker, then, may best be described as a point on a spectrum of bilingual competence in which the monolingual truly has no place. Rather, the balanced bilingual is the proper model of comparison, and the proficiency of the heritage speaker in her weaker language will determine her distance from that target. This chapter describes bilingual language systems in general, and the emergent qualities of two languages in contact in the mind, but also positions the heritage speaker as a true bilingual, with all the implications attached the term.

The Unitary Linguistic System Hypothesis claims that children acquiring two languages simultaneously are delayed in approaching age-level milestones in their respective languages. It supposes an initial monolingual stage during which the child confuses all aspects of the two languages, combining them into a single system. Two stages follow, one in which the child separates the lexicons but uses the same syntactic rules for both languages, and finally one in which the child may truly be called bilingual, having established two distinct syntactic systems as well. These stages are not passed until around three years into the acquisition process. (Volterra and Taeschner 1978) More recent work on these simultaneous bilinguals, however, has shown that even in the domain of morphosyntax the child acquires language specific representations and organizes them autonomously from the beginning of the acquisition process, even keeping pace with the normal language development of monolinguals. (Genesee and Nicoladis 2009) These

bilinguals should be considered to have developed two L1s, native speakers of both languages, from the very beginning.

Many of our Welsh heritage speakers were on their way to becoming proficient simultaneous bilinguals like these, but a dramatic shift toward the dominant use of one of their languages led to the heritage system's divergence from a native-like language outcome. Many others acquired their languages sequentially, their first being the heritage language (HL), Welsh, and only later the second and dominant language, English. In both cases, Welsh acquisition was begun in infancy and should have been advantaged by any particular language learning aptitude possessed by the young mind, if such exists, though to varying degrees would the early language system be called "bilingual." In either case, by the time English has become the dominant language and Welsh the lesser used HL, the language system is undeniably bilingual, and an understanding of bilingualism should aid us in describing the heritage speaker as well.

One domain in which the bilingual mind shows a particular talent is metalinguistic awareness. De Houwer et al. (2006) reports that simultaneous bilingual children develop a comprehension of translation equivalents in their two languages early on, understanding that there can be two words for a single real-word item in the same way that adult bilinguals do. Similarly, an awareness of the arbitrary nature of linguistic labels is observed in Foursha-Stevenson and Nicoladis (2011). There, the researchers compared bilingual and monolingual pre-school age children in their metalinguistic awareness through the use of a grammaticality judgment test.³ Overall, the bilingual children scored higher than the monolingual children in accepting the

³ The onset of an ability to judge well-formed sentences and reject ungrammatical ones emerges around age four, and continues to develop until age seven and beyond. The Grammaticality Judgment test (GJT) is used by linguists with subjects of all ages in order to test the linguistic competence of lower proficiency speakers, determine the acceptability of certain linguistic structures in native grammar, etc. It usually consists of a list of possible sentences which the participant rates in terms of how grammatically acceptable she finds them. (Foursha-Stevenson and Nicoladis 2009)

grammaticality of adjective to noun ordering, the obligatoriness of a determiner (e.g. definite article), and object pronoun placement. These results show that bilingual children develop a better syntactic awareness earlier than monolingual children, and therefore grasp that language is a formal system from a young age. The implications of a small child understanding that something is a system, that there are such things as “systems” in which to organize information, could be huge. It is in this abstract formalism of language, not in the languages themselves, that the researcher must find an explanation for any extension of cognitive facility that the bilingual exhibits in non-linguistic domains.

Ianco-Worrall (1972) similarly reports on the ability of bilingual children to recognize earlier than their monolingual peers that language is an abstract system, distinct from the tangible world which it is meant to describe. Afrikaans/English bilingual children in South Africa aged between 4 and 9 were asked to suppose they were making up names for things. Could they call a cow a dog and a dog a cow? Most bilingual children answered “yes” while only a minority of the monolingual children allowed it. Ianco-Worrall concludes that the arbitrary connection of a word in a particular language to its real-world object becomes apparent to bilingual children earlier than it does to monolingual children because of their regular use of two words for the same object. The obvious value of this skill is in its application to learning even more languages. The very nature of being bilingual facilitates multilingualism, which is, of course, a highly valuable extension of this bilingual cognitive state. Children exposed to more than one language from a young age would have less difficulty in acquiring a third, at any age, than their monolingual peers. (cf. Klein 1995)

Bilingual cognition has also been found to surpass the abilities of monolinguals in areas that do not necessarily have anything to do with language itself. So-called “mapping insights” may derive from a lifetime spent navigating two ways to say the same thing. Bialystok et al. (2005) reports on the results of several studies testing the ability of both monolinguals and

bilinguals of many ages to control attention in order to inhibit misleading information. Participants were asked to ignore the position of a stimulus in order to report its color, i.e. ignore the misleading placement and only pay attention to the question at hand—the Simon task. The bilinguals performed better than the monolinguals in early childhood, adulthood and later adulthood, being evenly matched only during young adulthood when, it is supposed, the mind is at its peak efficiency anyway. The researchers suggest that bilingualism provides not only better cognitive control over attention in childhood but also provides a defense against the normal decay of this control which comes with aging. This is a process largely reliant on the inhibitory mechanism discussed in Chapter 3, by which problem solving involves mentally blocking the activation of irrelevant details while simultaneously enabling intentional focus. The extensive regular practice of the bilingual mind in alternately activating and inhibiting its two language systems in the face of semantic or situational overlap may contribute to a more efficient level of control over these processes. This enhanced control is, itself, then part of the bilingual toolbox, to be applied across all domains of cognitive processing rather than being limited to the linguistic faculty alone.

The implications of this enhanced inhibitory control in relation to age-related cognitive decay has been the particular focus of much research. Craik et al. (2010) reports on 211 patients who had been diagnosed with Alzheimer disease. Of those, 109 were classified as monolingual and 102 as bilingual. Even though these two groups were equivalent on measures of cognitive and occupational level, with no gender or immigration status effect, and though the monolinguals reported more formal education, it was the bilinguals who reported the onset of Alzheimer symptoms an average of 5.1 years later than their monolingual peers. They were also diagnosed with the disease an average of 4.3 years later than the monolingual group. The investigators believe that this supports their claim that lifelong bilingualism confers a sort of protection against the onset of the disease. This effect appears not to be attributable to the other factors of education,

occupational status, and immigration which were also reported in the study. Bilingualism itself is acting in some way as a cognitive reinforcement, compensating, at least for a time, for the effects of accumulated neuropathology associated with Alzheimer disease. An earlier study by these researchers found that age-related dementia not associated with Alzheimer disease was also affected by bilingualism in a similar way, i.e., delayed by four years on average. (Bialystok et al., 2007) These are significant findings indeed. The Alzheimer study does not claim that bilingualism delays the build-up of plaques in the brain that are associated with the disease, rather that the symptoms are offset by the unusual abilities of the bilingual mind—but even this delay in the onset of symptoms is remarkable. It is evidence that this particular cognitive exercise, the processing of two languages in alternation, can have a positive health effect on the brain in a similar way as lifelong physical exercise on the rest of the body.

The positive effects of bilingualism are not exclusively related to aging, however. Creative, also called “divergent,” thinking is described by certain characteristics—fluency and flexibility, or the abilities to rapidly produce and consider a large number of solutions to a problem simultaneously and to readily modify information as needed, as well as a talent for producing original ideas and elaborating the details of those ideas in order to carry them out (Guilford 1967, 138). Such “divergent thinking” may also be an emergent property of bilingualism related to the cognitive control discussed above. These qualities of thinking were observed in Kkarkhurin’s (2010) study which compared monolingual and bilingual verbal and non-verbal creative behavior. The study focused on the fact that any creative advantage from bilingualism seemed not to extend to the verbal domain, but the subjects were primarily late L2 (English) learners being tested in that language rather than the L1 (Russian). A weaker command of verbal skills in a later learned language seems hardly worth arguing. But for our purposes, we need only note that the observations about non-verbal creativity, a domain not inherently related to language, showed a bilingual advantage. The subjects were given the Abbreviated Torrance

Test for Adults (ATTA), with three types of divergent thinking prompts—suppose you can walk or fly on air without a plane, what sort of troubles would you encounter? (the verbal divergent thinking test); complete as many pictures as possible with the given incomplete figures, and draw as many pictures as possible with nine given triangles arranged in a three-by-three matrix (the two non-verbal divergent thinking tests). The bilinguals performed significantly better than the monolingual controls on the two non-verbal creativity tasks.

“This advantage of bilinguals may arise from routine ambiguity inherent to their multilingual practice, in which the same basic idea may have different nuances in different languages... This tolerance for ambiguity in turn may facilitate their ability to keep a pool of possible solutions open long enough to generate a creative idea.”
(Kharkhurin 2010, 220)

We see that creative thinking, as well as its correlate, intentional control, can be considered part of the bilingual advantage. Here we have evidence that sequential, even late bilinguals do possess the cognitive advantages that correlate with bilingualism. There is no reason to believe, therefore, that those benefits will be restricted to simultaneous bilingual heritage speakers either. The sequential versus simultaneous bilingualism distinction is not considered a necessary qualification for our heritage speakers for these cognitive advantages, nor should the age of language shift or emergence of English as the dominant language determine the extent to which the heritage system is a bilingual system, benefitting from all of these advantages. The heritage speaker, being an imbalanced bilingual like the Russian/English bilinguals of the Kharkhurin study, is not excluded from the potential cognitive advantages discussed above. Even those heritage speakers who use their weaker language far less frequently than their dominant language will be exercising the cognitive control attributed with these positive effects when they *do* use their HL. There may be some threshold of use which is the minimum quantity of bilingual language activation which is necessary to maintain these cognitive benefits, but that level has not yet been established. My working assumption, therefore, will be that the heritage speaker who

maintains some level of functional proficiency in the HL will also be considered to benefit from the cognitive advantages of bilingualism.

Hakuta (1987) found that there are bilingualism effects on cognitive abilities related to spatial reasoning which are particularly pronounced in younger children. Using tasks drawn from Raven's Progressive Matrices⁴ and Thurstone's Primary Mental Abilities⁵ (essentially IQ-testing), Hakuta designed a longitudinal study of Puerto Rican children in bilingual education programs in New Haven, Connecticut. The children were in transitional stages of bilingualism, as so-called "bilingual" educational programs in the United States are generally designed to transition the students from monolingualism in the home language to a fluency level in English which is sufficient to transfer them to monolingual English mainstream classrooms. This subtractive bilingualism, in which the development of a second language comes (intentionally) at the cost of the first, surely has implications for the study's findings, but Hakuta accounted for these by testing proficiency in both Spanish and English. Those measures were then used as independent variables which could affect the cognitive abilities he was testing. The interesting results came during the subjects' kindergarten to first grade years, when degree of bilingualism positively correlated with performance on the tests of non-verbal measures of "intelligence"—the more balanced the bilingualism, the better the spatial reasoning. In a similar study using so-called intelligence measuring tests, Ben-Zeev (1977) attributed such a skill-set to the strategy required of bilinguals in distinguishing their two languages. The most direct way to do this is to pay attention to the systematic aspects of language, a skill which would transfer to other tasks of

⁴ Raven's Progressive matrices is a nonverbal group test, intending to test the subject's reasoning ability, in which the subject is presented with sixty multiple choice questions and asked to identify the missing element that completes a pattern (often in the form of a 4x4, 3x3, or 2x2 matrix, hence the name). (Raven 1936)

⁵ Thurstone defined "Primary Mental Abilities" as verbal comprehension, word fluency, number facility, spatial, visualization, associative memory, perceptual speed, and reasoning. He also developed the method of measurement still used in IQ testing today. (Thurstone 1938)

system recognition, such as spatial reasoning, in which structure is sought in perceptual situations and reorganization of those perceptions is necessary. The correlation in the Hakuta study between *balance* in the bilingual system and greater spatial reasoning does weaken the argument that heritage speakers will experience this spatial reasoning advantage, but knowledge of such a benefit could go a long way toward encouraging our heritage speakers to (re)develop their weaker language. This is part of the set of practical implications for language maintenance which follow from this project on Welsh as a HL and which will be further addressed in the Conclusions of this dissertation.

A quick, though important, note is necessary here. I caution against reading these studies as true tests of intelligence. The validity of these measures as values of actual “intelligence”, a tricky concept to define in itself, has been a question of serious debate for several years. Many researchers now believe that intelligence testing itself may be biased for racial or socioeconomic background and cannot be taken as the impartial indicator it was initially believed to be. (cf. Nisbett 2009) The above discussed studies of bilingual cognitive abilities do not make claims about intelligence or IQ scores themselves. Rather, the researchers are using IQ-testing methods to measure the actual skill sets tested by those tasks—spatial reasoning, pattern recognition, and so on—without then taking the next step of interpreting those measures as intelligence itself. I do not want to imply that research shows bilinguals to be “smarter” than their monolingual peers. We can, however, observe a significant difference in performance *on these tasks* which is representative of some underlying divergence in thinking between these two populations, mono- and bilinguals.

It would be disingenuous, however, to suggest that bilingual acquisition proceeds exactly as monolingual development does except for the added bonus of some extra cognitive abilities. The cost of developing two language systems simultaneously may be small but it does exist. Ben-Zeev (1977) and Hakuta (1987) both found that vocabulary development in bilingual children

was surpassed by their monolingual peers. A similar delay was observed in the acquisition of Spanish gender in Gathercole (2002). The significance of reduced exposure to each language, however, must not be overlooked. Thordardottir's (2011) study examining French-English bilingual acquisition in Montreal shows that vocabulary development in each of a bilingual child's two languages is closely connected to the amount of exposure the child has had to each language. Though she found that vocabulary comprehension was greater than vocabulary production, there was a clear connection between the amount of exposure to a language and vocabulary performance in that language. This is a fairly intuitive result of situations in which the total amount of language exposure must be shared between the child's two languages. It is also interesting, however, that these observations of delayed development tend to be limited to the lexicon, rather than the syntax. As was discussed in Chapter 3, "input" and "exposure" are loaded terms related to the importance of frequency effects, and that is not a topic about which there is a consensus among linguists. I am unaware of any studies to date which observe a specifically morphosyntactic delay in bilingual language acquisition. Even Schwartz et al.'s (2009) study of delayed inflectional morphology in Russian-Hebrew bilinguals was limited to irregular forms, arguably a lexical rather than inflectional phenomenon. The disadvantages of dual language acquisition in childhood, therefore, can be said to be restricted to lexical development and are far outweighed by the positive effects conferred by the bilingual cognitive system.

If a cognitive advantage can be found to correlate with bilingualism in domains which do not relate to language processing itself, then the question is: where does this ability come from? Kharkhurin (2010) and Ben-Zeev (1977) have been discussed above, but an accounting for the mental flexibility that is correlated with bilingualism has been attempted by many linguists in the past few decades. The metalinguistic advantage is the most straightforward—knowledge about language as an abstract system can come more quickly to those children who are regularly disentangling their two languages from each other, and in the process separating both from their

real-world representations (as seen in De Houwer et al. (2006) and Foursha-Stevenson (2011)). The bilingual is more likely to understand the arbitrariness of word-to-meaning assignment than a monolingual, who would have experienced the same kind of label sorting only when faced with synonyms.

The other cognitive advantages of bilingualism are more difficult to account for. Cook (1992) attributes this bilingual effect to what he calls “multicompetence”, or the compound state of a mind with two grammars. The combination of two grammars amounts to more than just the equivalent of two monolingual systems side by side. Rather, the two grammars combine into a sort of mega-grammar, still sortable by markers so as to prevent constant interference, but not completely immune to transfer from one language to the other. Uncertainty remains about the location of second language storage in the brain, but if we follow Chee et al. (1999) and assume that the same areas of the brain are activated for L1 and L2 processing in balanced bilinguals, then Cook’s theory, arguably, has a physical reality as well. The “multicompetence” theory relies on evidence of bilinguals mixing their two languages. Recall the Hebrew-English bilinguals of Seliger’s (1989) study which was discussed in Chapter 3. His “Redundancy Reduction Principle” assumes that there is some amount of communication from the L2 to the L1, and presumably vice versa, pressuring the English L1 to adopt the simpler relative clause syntax of the Hebrew L2—i.e., using only ‘*that*’ as a relative marker and losing the range of relative pronouns that would be used in any other English relative construction. The multicompetence of this speaker, then, contains a different knowledge of English than the system of a monolingual. The two languages are presumably interacting, even communicating changes and compromises between the available linguistic options allowable in each language. Phonology, likewise, has been shown to exhibit L2 on L1 effects as a result of this “multicompetent” linguistic system. Flege (1987) observed that

French learners of English have longer voice-onset time⁶ when pronouncing French voiceless /t/ than do monolinguals of French. This effect is attributed to English voicing, which has affected both languages rather than remaining restricted to the bilingual's English domain.

The simple model of coordinate bilingualism, in which the bilingual mind is effectively two monolinguals in one, is too tidy to account for the blending which is repeatedly observed in bilingual speech. Interference from one language to another is a thoroughly documented effect. Pavlenko (2004) outlines five processes which can occur as a result of the interaction between two languages—borrowing, restructuring, convergence, shift, and attrition. Importantly, these distinctions mean that not all influences of the L2 on the L1 are signs of attrition. Interference is usually seen as a negative effect, as the slow and steady damage caused by a dominant language to the lesser used language. But it is important not to lose sight of the linguistic enrichment that can come from being bilingual. The borrowing and restructuring of one language under the influence of another can add a level of nuance to the communicative capacity of its speaker, especially in the company of other speakers with similar linguistic profiles. Seliger's (1989) Hebrew-English bilingual is a clear example of an L1 losing out to the L2, but steady-state balanced bilinguals will show evidence of interference as well, without it needing to be considered a threat to either system. Code-switching, lexical borrowings and semantic extensions are examples of this kind of language blending which need not necessarily be considered a sign of damage to either language system.

Crosslinguistic influence like this, however, is a controversial topic in itself. If multiple languages were constantly intruding on each other in the bilingual mind, then the ability to produce utterances exclusively in one language or the other would be an accomplishment indeed.

⁶ Voice-onset time (VOT) refers to the amount of time that passes between the release of a stop consonant and the initiation of voicing, or the vibration of the vocal folds. This may include voicing that begins during the period of closure for that consonant, i.e., before the stop is released.

The mental energy required to sort the linguistic information of two languages every time the speaker forms an utterance surely must be alleviated by some method of storage with cultural or situation specific tags. Evidence of this tagging method can be seen in the study of Chinese-English bilinguals and cultural priming which was discussed in Chapter 3 above. (Zhang et al. 2013) Intentional language mixing in the right context is also a well-known phenomenon, however. Code-switching, when a bilingual speaker smoothly transitions from one to another language and back, mid-utterance, in order to produce a nuanced meaning conveyed only through one of her languages, has been repeatedly shown to be intentional and controlled. (Tracy and Lattey 2009) It is not the product of a jumble of languages spitting out confusion rather than sentences. Cook (1992), though, sees this acceptable linguistic option, the code-switch, as evidence that the two languages are intimately connected in the brain rather than compartmentalized. Clearly, the evidence could be argued either way—code-switching shows a compartmentalization where language is only intentionally accessed, or it represents the product of a single system, where all linguistic information is available in any utterance. At any rate, the speaker does *know*, metalinguistically, which grammar and which vocabulary belong to each of her respective languages, and the fine control that a balanced bilingual exhibits in switching between the two is evidence enough that bilingualism involves keeping the languages apart. Indeed, it seems to be the defining characteristic of bilingualism. The level of control over those two linguistic systems is a way of defining proficiency in those languages. Imbalanced bilinguals who exhibit interference from one language to another are not evidence of a blurring of the two languages, but rather of the weakness of one grammar using the other as a crutch.

Crediting bilingualism with the ability to distinguish multiple grammars rather than blend them into a mega-grammar is fundamental to explaining the cognitive advantages correlated with bilingualism. If those advantages are caused by an efficient method of recognition and navigation, then the bilingual must in fact recognize her languages as distinct systems rather than as the

single compound grammar of Cook's "multicompetence." A fair prediction would be that just as the degree of balance in the bilingual system correlated positively with spatial reasoning skills in Hakuta (1987), so should it correlate negatively with vulnerability to crosslinguistic influence. Control over the systematicity of language form emerges again as the important variable. But without a better understanding of the actual neurological processes involved, and therefore constrained by the necessity of metaphorical, inevitably unsatisfying description, it is best just to recognize that it is empirically true that each of a bilingual's languages is often observed to be slightly off the baseline by one measurement or another. Transfer from a dominant to a weaker language, intentional code-switching, and added shades of nuance to the lexicon of both languages are all examples of this divergence from the monolingual norm.

The characteristics of the bilingual language system—its conferred non-linguistic cognitive advantages as well as its organization of the languages themselves—should be exhibited by the heritage speakers as well. Again, recognizing that the heritage speaker is a type of bilingual, the level of proficiency the speaker controls in the HL will determine the extent to which her speech shows signs of Pavlenko's five processes of language interaction. We can also predict, therefore, that the non-linguistic cognitive advantages experienced by other types of bilinguals will also be experienced by heritage speakers to a degree determined by their proficiency in the HL. Being the weaker of a bilingual's languages, the HL is in many ways more interesting to the researcher than the speaker's proficiency in the stronger, dominant language. Not only will it reveal the patterns of language that the human mind defaults to in the absence of sufficient language-specific input, but it will also be the factor deciding the shape of the entire language system.

The term for a second language (L2) learner's grammar in L2 acquisition research is the "interlanguage." (White 2003b, 1) The theory supposes that any divergence from native speaker proficiency in an L2 grammar is not random. The language produced by a learner is still a

possible language, if not exactly correct according to the native speaker baseline. The system is still rule-based, it is consistent, and it follows the same patterns as those observed across world languages, supporting the idea of Universal Grammar.⁷ White (2003a) offers an example of a fossilized⁸ L2 interlanguage grammar. Even fluent L2 speakers of a language show some signs of non-native-like performance. The interlanguage is this grammar, i.e., not entirely free from influence from the L1 (or other acquired languages), and also probably falling short of native competence. The speaker may have plateau-ed in his learning, or reached a level of proficiency sufficient to communicate as well as he needs or wants to, but short of full native proficiency norms. The term is not restricted to transitional states of grammar, but can be applied to a steady end-state. An example of stable optionality of this kind is White's (2003a) case study of a Turkish first language speaker who had acquired English as her L2. The speaker's inconsistency in producing accurate forms of inflectional agreement in English is described as a quality of the interlanguage that sets it apart from native norms but does not reduce the system to incomprehensibility.

Interlanguage is analogous to the grammatical phenomena observed in heritage grammars as well. The heritage grammar also falls short of native speaker norms, but is rule-governed and systematic in the same way a fossilized L2 grammar is. Recall the description of HL in Chapter 1. The heritage grammar should also, like interlanguage, be characterized as a possible real-world

⁷ Universal Grammar (UG) refers to a “genetically prespecified body of knowledge about human language,” hard-wired into the brain and independent from the actual linguistic exposure perceived in the environment. “If a fact about an individual speaker’s grammar turns out to be a fact about grammars of all the world’s languages, if it is demonstrably not a fact acquired in imitation of input data, and if it appears to be specific to language, then we are warranted to suspect that the fact arose from a specific feature of UG.” (Pesetsky 2009; cf. Chomsky 1965; Chomsky 1966)

⁸ “Fossilizable linguistic phenomena are linguistic items, rules, and subsystems which speakers of a particular NL [native language] will tend to keep in the IL [interlanguage] relative to a particular TL [target language], no matter what the age of the learner or amount of explanation and instruction he receives in the TL.” (Selinker 1972, 215)

language, if one that is divergent from the target baseline language. The Spanish L1 speakers living in the L2 (English) environment of Los Angeles, California, in Silva-Corvalán's (1991) study exhibit this rule-governed behavior in their weaker, heritage L1. Silva-Corvalán proposes that a reduction of the verb system in these Spanish grammars, the loss of tense forms, is a result of a process of simplification, in which the universally more marked, language-specific system would be avoided in favor of the cognitively lighter load of a more basic, yet still principled system.

“What is remarkable about the manner in which the system changes is its regularity. Patterns of simplification and loss are never random but at all stages conform to a predictable trend to develop a least grammaticalized system within the constraints of universal grammar possibilities and preferences.” (Silva-Corvalán 1991, 163)

The theoretical explanation for the restriction of possible grammars to rule-governed systems, even in the interlanguage of beginning learners, relies on the supposition that the speaker has access to Universal Grammar (UG), or the innate human faculty for constructing language from an input which seems insufficient to induce all possible utterances. Borer (1996) points out that UG is “first and foremost a set of constraints on possible language grammars, and only secondarily, and not according to all models, a language acquisition device.” (Borer 1996, 719) The debate about whether learners of a second language have access to this UG in the same way that a child acquiring her first language does continues, but, as the HL is the L1, few would argue that that system would not have been shaped by access to UG. Consequently we avoid the controversy and conveniently have a means of accounting for our observations that HL is, indeed, a logical system rather than random and unordered speech. If we see that the heritage grammar follows these universal constraints and abides by a logical system of linguistic form, even if it is novel and unique, then the advances made in L2 research toward recognizing the interlanguage (at any stage) as a natural language can be borrowed in understanding HL as natural language as well. The proficiency of the heritage speaker and that of the late L2 learner have also been found

to resemble each other, (Montrul 2005) perhaps precisely because of the universal nature of linguistic formulation upon which both kinds of these atypical speakers are relying in order to produce coherent, if non-native, utterances.

The qualities of the heritage or L2 grammar which distinguish it from the baseline, while decidedly rule-based, may or may not be dictated by the other language. “Transfer” or “interference” are the terms used in explaining the phenomenon of finding a linguistic structure from one of a bilingual’s languages active in the other, and in the case of Welsh, for example, English is very often blamed for the abnormalities observed in the grammar of a speaker for whom it is the weaker language (more on this in Part II of this dissertation). But this simple intuition ignores the sophistication of the language faculty. In some cases, the speaker’s other language can be blamed fairly for divergence from the baseline, but in others, it is the speaker’s own innovation and her recourse to UG which must be the explanation. The best subjects to use in testing crosslinguistic transfer, given the predictions outlined above, are balanced bilinguals. Even speakers who are nearly equally proficient in their two languages have been argued to exhibit signs of linguistic transfer. We have decided that the ability to control two languages in the same mind is the defining characteristic of bilingualism, but the “deactivated” language is not always completely shut out of use. A speaker may code-switch intentionally, but they may also use a sort of hybrid utterance accidentally, such as the interference evidenced by semantic extension discussed above. The bilingual system, even if it exists in a balanced steady-state, is therefore not immune to crossover between the two (or more) languages.

If Pavlenko’s (2004) same five phenomena of language contact are observed across all bilinguals, though to greater or lesser extents, then the clean distinctions implied by much of the literature on L2 learners and native speakers, monolinguals and bilinguals, is clearly inadequate to describe these populations. A more fluid and integrated model of all kinds of multilingualism must be imagined. Herdina and Jessner (2002) offers a dynamic model of multilingualism which

accounts for the phenomena of transfer and attrition as effects which follow from the constantly shifting system of bilingualism. The continual processes of language loss and maintenance are central to their theory. The “dynamic system” they employ is theoretically based on analogy to other models of living organisms as dynamic systems, or a set of variables that mutually affect each others’ changes over time. (Herdina and Jessner 2002, 77-8) Consequently, the manipulation of a single parameter in this systems-theoretic model can have an effect on the state of the system as a whole, and so also on the state of other individual parameters in the system. Applying this model to the bilingual mind imagines not only the speaker’s languages as components of a holistic system, but each individual linguistic construction or vocabulary item as an independent actor in the model. Alterations to grammatical structures, higher or lower activation frequencies of those structures, or additions of new grammatical options would therefore be able to influence the other language.

Clearly, this dynamic model presupposes a single, interconnected language system in the mind. The idea of a constantly adapting grammar is an appealing one, and one which seems intuitively accurate, but the combination of multiple languages into a single system is, as we have seen, controversial. The dynamic model as it stands may over-generate crosslinguistic transfer where the evidence describes a more isolated phenomenon, nor does the linguistic system need to be considered holistically—the various sub-modules may be more or less affected by language transfer. Syntax is arguably internal to the mind and to the linguistic faculty, but pragmatics is connected very intimately with the cultural knowledge of the speaker, and as such may be more vulnerable to divergence from native norms in cases where the speaker is less familiar with the weaker language’s community. Influence of the dominant language over the weaker one seems particularly pronounced in the pragmatic domain. Pinto and Rachio (2007) explores request formation in Spanish among heritage speakers who are dominant in English. The downgrading, or

use of circumlocution, which is considered polite in English requests has found its way into the bilinguals' Spanish, despite that language's preference for more direct question formation.

The influence of a dominant over a weaker language is not always found to be the culprit in language simplification, however. In a L2 context, Kanno et al. (2008) found L1 English to be less active in forming L2 Japanese grammar than has often been assumed. In a bilingual acquisition context, Austin (2009) explores factors related to bilingual exposure, rather than to bilingualism itself or cross-linguistic interference, as causes of speaker divergences. Bilingual children acquiring Basque and Spanish natively produce more root infinitives than monolingual Basque children, but this discrepancy is attributed to the different patterns of exposure to Basque that these two groups receive, not to any interference from Spanish. The question of language simplification may reduce to the distinction between language-internal abilities and language-external awareness, and so we arrive back at the theory of interface vulnerabilities discussed in Chapter 3. The interface between syntax and pragmatics is affected by the limited cultural experience of the heritage speaker, and consequently the syntax appears stunted as well.

I have tried to be clear when reviewing studies whether they are looking only at balanced bilinguals or also at unbalanced bilinguals, because it is a distinction which can have enormous implications. The connection between the cognitive advantages of bilingualism and a certain balance between the speaker's languages has already been discussed, but what, then, does the term "bilingual" necessarily imply? Can we successfully fit the heritage speaker into this mold and consequently also expect her languages to be mentally organized in the same way? The bilingual does not conform to a single model. Indeed, there is arguably no such thing as a "balanced bilingual" at all. Silva-Corvalán (1991) describes instead a continuum of fluencies in her study of L2 English spoken by native Spanish speakers in Los Angeles.

We should imagine a bilingual continuum "similar to a creole continuum in that one may identify a series of lects ranging from full-fledge to emblematic English depending on

whether the bilingual is more or less dominant in Spanish or English. Even further, these individual lects do not correspond to fixed dichotomies of the type “compound-coordinate”, or “balanced-unbalanced.” Rather, at the individual level they represent a wide range of dynamic levels of proficiency in the subordinate language, i.e., it is in principle possible for an individual to move or be moving toward one or the other end of the continuum at any given synchronic stage of his life.” (Silva-Corvalán 1991, 151)

This is the model to represent bilingualism in all situations, and arguably for both languages—always in flux. Given the similar discussion of the heritage speaker continuum in Chapter 1 (in particular Valdes 2001), it seems fairly clear that heritage speakers are indeed as accurately described as bilinguals as are more balanced bilingual speakers or speakers whose L1 is their stronger language. The heritage speaker, with his dominant language being the later acquired of the two, may intuitively seem to be a different phenomenon, but the very diversity of abilities on this bilingual continuum make it possible to compare speakers across the entire range of proficiencies and levels of proficiency balance.

I have frequently been asked about the difficulty of doing HL research with a language like Welsh, where the entire population of speakers is bilingual and no one can serve as a truly monolingual control group, but this is in fact the ideal comparison for the heritage speaker. Grosjean (2008; 2010) has argued at length against the monolingual as the ideal model for comparison against L2 learners. It is for the same reason that the monolingual should not be the exemplar for heritage speakers either. The ideal end-state for heritage speaker bilinguals is a mind controlling two language systems with equal proficiency, with all the cognitive benefits which have been shown to follow from that state. In a way, every individual in the population of Welsh speakers, no matter how fluent, falls somewhere on the same spectrum of bilingual proficiency outlined above. For many, their English proficiency may far surpass their Welsh proficiency, but they are bilinguals nonetheless. In fact, most will fall below a perfect balance between Welsh and English, and are more likely to be imbalanced in favor of English. But the range of proficiency on this bilingual continuum is broad enough to accommodate both the heritage speakers as well as

those who will be used as the controls in this study—nearly balanced or Welsh-dominant speakers. By acknowledging that heritage speakers are true bilinguals, the first step is taken toward integrating this population of Welsh speakers into the language community.

My intention in describing Welsh as a HL in this dissertation is not simply to point out the ways in which the HL grammar falls short of native norms, harking back to previous terminology for these speakers as “semi-speakers,” “non-traditional speakers,” or other such negative and exclusionary labels. This chapter is intended to also point out the practical gains experienced by these true bilinguals, the heritage speakers, despite their history of language shift. There is a positive side to their story as well, including potential cognitive advantages like improved spatial reasoning, metalinguistic awareness, delayed onset of dementia, and so on, which is part of the current description of the bilingual mind. This is an alternative and favorable characterization which these heritage Welsh speakers might choose to identify with, as opposed to any definitions of their language abilities which primarily imply some level of deficiency in their grammar. The “heritage” component of this research field is brought to the fore here, in which the intimate connection between the HL and the speaker’s personal history is recognized as something which must be respected rather than criticized. Accommodating the heritage speaker on the bilingual continuum is perhaps the most important theoretical step which can be taken in accomplishing that goal.

Part II. Analysis of Heritage Welsh Narrative Samples

Introduction to the fieldwork

One of the primary objectives of this dissertation project has been to build a corpus of heritage Welsh, a previously unrecorded form of the language. (Appendix II.1; Boon 2014) The collection and analysis of language corpora is an essential early step in the study of any language. The researcher must be able to mine a large body of data in order to pinpoint any noteworthy phenomena. Only after finding an interesting pattern in a language corpus will further and more targeted studies be designed. The corpus of heritage Welsh is not an end in itself, nor do the observations of heritage Welsh described in this dissertation fulfill its only purpose. Rather, this project serves only as a first step.

Naturally, corpus building is a laborious endeavor. Once the form that the language samples will take has been decided, the informants must be recruited and recorded, and these interviews later transcribed, glossed, and translated. The heritage Welsh corpus is a collection of 20 heritage speakers (and 20 fully proficient native controls) narrating the story presented to them through the pages of a children's picture book—Mercer Mayer's *Frog, Where Are You?* (Mayer 1969) Though there is an English title on the cover, the 29 pages of the book are wordless, making it an ideal text for this purpose. The *Frog* story follows the adventures and mishaps of a boy and his dog as they wander in the woods in search of their missing pet frog. The *Frog story* is a standard text in research of this sort. (cf. Berman and Slobin 1994; Knightly et al. 2003; Montanari 2004; Polinsky 2008a; Polinsky 2008b; Polinsky 2011; Treffers-Daller 2010; Ueno and Polinsky 2009)

The requirements of the narrative are not particularly taxing. It is essentially a task of describing the pictures on the page, in which the heritage speaker is able to choose her own

grammatical constructions and vocabulary, avoiding the forms she is least comfortable with. For adults, the storybook may seem silly, which also serves to ease any anxiety about a perceived test environment. The heritage language's association with specifically childhood language experience, however, may also be cued by the nature of the task, and such a cueing effect may actually facilitate access to Welsh, as was discussed in Chapter 3. At the very least, it can be hoped that the awkwardness or unfamiliarity of speaking with a foreign researcher might be mitigated by the lightness of the story. The only aspect of the narrative task which directly challenges the proficiency of the heritage speaker informant is in the necessary vocabulary. Specific lexical items are prompted by the story, and the speaker's ability to produce them is one of the components of fluency particularly discussed in Chapter 5.

Heritage speaker participants were recruited exclusively in the London area. In restricting the sample population to these expatriates, I was able to limit the potentially muddying factor of continued ambient exposure to the Welsh language in Wales, e.g., bilingual signs, translations on official forms, radio or television media, Welsh language newspapers, overheard Welsh-language conversations, and so on. The amount of exposure to the Welsh language in London is a far more easily measured variable, and one which the informants were able to provide with some degree of certainty. This measure of exposure becomes particularly important in Chapter 5 in the discussion of its possible effect on the components of fluency under analysis. Had I not been able to precisely determine the quantity of that exposure to Welsh, it would not have been possible to analyze its effect on this feature of heritage Welsh—but that is not to say that the exposure variable is not important in Wales as well. Heritage speakers certainly exist in Wales, but their individual language exposure profiles are undoubtedly more complicated than those of heritage speakers who live in England. The quantity of their regular exposure to the language is, of course, just as significant as it is for the heritage Welsh speakers under analysis here, but it may exist in far subtler forms than what I am prepared to investigate in this project.

I recruited these London-based heritage speaker participants through word-of-mouth and strategically distributed flyers. A common characteristic possessed of all the heritage Welsh informants who participated in this project was their own self-identification as Welsh heritage speakers (once the term was explained to them) and, perhaps just as importantly, as culturally Welsh. I conducted the fieldwork while in residence in London during the 2012-2013 academic year, during which I based my contact with the Welsh community there at the London Welsh Centre.¹ The flyers that I distributed were also targeted at the Welsh living in London who maintain some tie to the Welsh culture. The majority were left at the few churches and chapels in London which still conduct bilingual services in English and Welsh. The fact that the speakers who volunteered for the interviews do maintain a personal connection and self-identification with Welsh (and often Welsh-language) culture, does not necessarily have any implications for the linguistic study here, but it does tie in with the discussion of the heritage speaker profile in Chapter 1. Self-identification and a perceived personal connection to the heritage language are often components of the heritage speaker profile, but there are no direct linguistic consequences of this beyond those indirectly affected by a speaker's motivation to maintain the heritage language.

The heritage Welsh speakers were recruited under a specific profile. The breadth of the terms “heritage speaker” and “heritage language” was explored in Chapter 1, but the specific focus of this project is the real grammatical consequence of reduced exposure to an otherwise naturally acquired language in childhood. That eliminates those who are heritage speakers only broadly defined. Chapter 3 investigated the differences between incomplete L1 acquisition and

¹ “The London Welsh Centre Trust is a charitable organization whose objective is to promote Welsh culture and language in London. Our home is the London Welsh Centre, a beautiful building in the Holborn conservation area on Gray’s Inn Road which is run by our dedicated staff and volunteers.” (Cymry Llundain/London Welsh 2014)

L1 attrition, finding that the distinction is perhaps unknowable in the heritage language context, but there is likely a differentiating effect determined by the age of language shift. Age of shift is, therefore, one of the variables investigated in Chapter 5. Consequently, the heritage speakers were recruited with a range of childhood language experience. The sample group was restricted to speakers who acquired the Welsh language at home, but it may have been either as the L1 which was only later restricted due to the emergent dominance of the L2, or as one of 2 native or first languages which were acquired simultaneously.

The issue of dialect is also worth a note here. Standard Welsh, as was discussed in Chapter 1, does have dialect variation, most generally speaking along a North Wales-South Wales boundary, but distinct dialects are also recognized on a smaller regional scale. Therefore, the dialect of the heritage speakers must be taken into account in establishing their baseline language. The heritage speaker samples, however, were found to exhibit very little differentiation by dialect beyond slight vocabulary differences. Dialect-specific grammatical forms were observed in the narratives provided by the controls, but when using the analytical present tense sentence construction, the differences between the dialects are largely lost. As this was (by far) the most common construction employed by the heritage speakers (see Chapter 7), any potential for dialect specification in their samples was obscured. I will note, however, that there may also be a leveling effect of London itself. Those heritage speakers who do maintain their heritage language with some amount of regular conversational practice in their London-based social community will undoubtedly not be limiting their interlocutors to speakers of the same dialect. This regular conversational use (a variable collected for the analysis of Chapter 5) was most often reported to take the form of chats at church or chapel, at the pub, or at the London Welsh Centre, for example. These are not dialect-restricted environments, and as such the heritage speakers will be exposed to, become accustomed to, and perhaps also adapt to dialects other than their own. Dialect, therefore, is not a noteworthy aspect of this project.

Predictably following from the discussion of Chapter 1, the heritage speakers, taken as a whole, also conformed to the heritage speaker profile in subtler ways than will be analyzed in the following chapters. For example, the typical low language confidence of the heritage speaker is clearly evident in the narrative samples, and disparaging comments about their own Welsh abilities can be found in the transcriptions of several of the informants.² This confidence, I hasten to note, seems to be more immediately connected to the speaker's expectations of the proficiency she may feel she *should* have, given her childhood exposure, rather than a judgment of her abilities more objectively. For these speakers, reduced confidence is not necessarily tied to low proficiency as much as to disappointment, and fairly fluent speakers are not an exception.

The following three chapters each detail a particular aspect of the heritage Welsh grammar observed in the corpus. Chapter 5 operationalizes the idea of language fluency and then examines the potential effects of measurable language exposure variables on the fluency outcomes of the heritage speakers. Chapter 6 closely examines the restructured heritage Welsh system of Initial Consonant Mutation, one of the most commonly studied aspects of standard Welsh as well. Chapter 7 investigates verb formation and agreement patterns in heritage Welsh, both of which show signs of reanalysis. The results of these three chapters confirm not only that heritage Welsh is divergent from baseline Welsh, but also that those divergences reveal informative patterns which have predictive power in relation to the language outcomes of heritage speakers.

² The hesitations of the heritage speakers can be observed from a quick glance through Appendix II.1. Each speaker's pauses are marked with #, indicating a one second interval of silence, and -@fp, indicating a filled pause such as "um" or "uh." Interjections in the narratives such as "my Welsh is getting worse as I'm reading this" and "my Welsh is terrible" are examples of some of the speakers' critical opinions of their own language abilities.

fluent, adj. :

1.
 - a. That flows, flowing.
 - b. *transf.* and *fig.*; esp. of things compared to a stream or to the tide.
 - †c. Flowing readily as a consequence or inference. *Obs.*
2.
 - a. Having the property or capacity of flowing easily; ready to flow; fluid, liquid. Of a painter: Producing a fluid or liquid effect.
 - b. *fig.* and of non-material things: Fluid, liable to change; not stable, fixed, or rigid.
3. *transf.*
 - a. Of hair: Growing in abundant quantity and falling in graceful curves; flowing.
 - b. Moving easily or gracefully; not stiff or rigid.
- †4.
 - a. Flowing freely or abundantly. Also, abounding *in*. *Obs.*
 - b. Giving freely, generous. *Obs. exc. dial.*
5.
 - a. Of speech, style, etc.: Flowing easily and readily from the tongue or pen.
 - b. Of a speaker, etc.: Ready in the use of words, able to express oneself readily and easily in speech or writing.
- ...

("fluent, adj. and n.". OED Online. December 2013. Oxford University Press.
<http://www.oed.com.ezp-prod1.hul.harvard.edu/view/Entry/72067?redirectedFrom=fluent&> (accessed January 02, 2014).)

The nebulous meaning of the term “fluent” deserves careful consideration, especially in the context of heritage speaker (HS) proficiency. It is a word universally employed in describing the abilities of speakers of any language and proficiency level, but it is in fact a very imprecise term. In casual usage it has a subjective and variable connotation, and is understood only in context. It may be intended as synonymous with native-level proficiency, in which case “fluent” is the standard of ability toward which the language acquirer progresses. But it may also merely denote basic speaking competence, or the lowest threshold across which the language learner may consider herself able to communicate in the language. In the natural setting, though a speaker

may self-identify as fluent or not depending on context, the term primarily refers to the impression of the listener and not to any obvious or easily measured characteristics of the speech flow. The factors affecting that impression are what I focus on here, and I argue for a method of quantifying those factors as a proxy for the concept of “fluency,” which is itself more accurately understood as a spectrum than as a binary property of language proficiency.

The common thread among the definitions cited above is one of fluidity and the image of water flowing quickly and unimpeded. It is the image of language in motion. (Segalowitz 2010, 4) But the factors that lead to an overall speaking competence in a first or second language are more varied than those which would contribute to the movement of water in a stream, and certainly there is nothing tangible that is truly in flow, only words and thought. This metaphor makes sense in the language context only in the most impressionistic of ways. In order to better operationalize this construct of “fluency,” and therewith measure the differences between our HS and baseline informants, we must understand what contributes to the overall impression of speaker fluency—because fluency is, above all, an *impression*. It can be no surprise, then, that fluency studies are an entire discipline in themselves.

By no means is this seemingly intuitive concept an easy one to measure. Not only do laymen use the term loosely, but linguists and language education professionals have not come to any consensus on which measurements determine perceived fluency either. In line with the water metaphor described above, speed and effortlessness seem to be the main characteristics of a fluent performance, but “fluency” must not be mistaken for overall language proficiency—a distinction between these two constructs should be maintained. (Chambers 1997, 536-7) Currently dominant language pedagogy—Communicative Language Teaching—stresses communicative competence, defined as the combined abilities of linguistic (grammatical and vocabulary) competence, sociolinguistic (socially appropriate) competence, discourse competence (navigation through a conversation) and, in particular, *strategic* competence, or the ability to effectively communicate

despite other break-downs in communication. (Brandl 2008, 5-6) The ability to speak at an appropriate speed and without interruptions does not necessarily require perfect linguistic competence according to this model.

“Fluency differs from other elements of oral proficiency in one important respect. Whereas such elements as idiomaticness, appropriateness, lexical range, and syntactic complexity can all be assigned to linguistic knowledge, fluency is purely a performance phenomenon.” (Lennon 1990, 391)

The “fluency” of the speaker is not predicated on her grammatical correctness, but rather on her proximity to native-like conversational pace and her success in communication.

Following this methodology, I will not be evaluating the grammatical accuracy of my heritage and baseline speaker informants as a measure of fluency. I will return to the grammatical output of the HSs in later chapters, but grammatical errors will not be judged, counted or used here as a valid fluency metric precisely because of this divide separating considerations of linguistic competence—or measures of grammatical accuracy—from those of strategic and discourse competence, the competencies most closely approximating what we are describing as “fluency.” The variability of success in completing communication tasks (in this case, the construction of a narrative) is all that will be analyzed in connection to fluency and the differences between heritage and baseline linguistic systems. Successful, efficient communication at an appropriate pace is a high level of fluency for our purposes. It is the manner of speaking rather than the words themselves, and may be found in anything from the simple declarative utterances of a HS to the grammatically complex narrative of a native speaker. Linguistic competence will affect fluency, as it is a factor determining the speaker’s recall of grammatical structure and vocabulary, but it is not a part of fluency itself.

“Fluency” may be an imprecise term in casual usage, but I do not believe it is impossible to set a standard and to use certain metrics of speech performance as a sort of complex of features

that may be measured in lieu of that vaguer concept. Importantly, without some reasonable attempt at defining our object of study in this precise way we would be left trying to describe listener intuition and opinion and failing to say much about anything at all. I do not mean to diminish the importance of native speaker judgments of fluency—a measurement used often by researchers in assessing fluency—but pulling apart the contributing factors of these judgments will not only make the task of measuring variation among speakers easier, but also help us to understand how complicated the interpretation of fluency really is. An awareness of the term's inconsistent use in common parlance will lend us an appreciation of the difficulty inherent in any attempt to survey minority language proficiency within a country's population. This is a point which I will return to in the Conclusions of this dissertation.

Lennon (1990) distinguishes between two versions of the meaning of “fluency.” In the broad sense of the word the term covers all aspects of oral proficiency—it is the highest point on a scale measuring spoken command of a foreign language. This is the meaning generally intended by laymen and language education professionals speaking less precisely. It is the pinnacle of learner achievement and anything less than some arbitrary cut-off point is simply not fluent. (Lennon 1990, 389) When a parent brags about his child's “fluency” in Spanish or a graduate student lists languages she speaks “fluently” on her CV, they are almost certainly using the term in its broad sense. “Fluency” in its narrow sense may instead refer to only a single component among many which contribute to overall oral proficiency.¹ In this more restricted usage, the water metaphor might make some sense. “Fluent” refers to the ease and free-flowing pace of the performance, but not necessarily its correctness, relevance, pronunciation, vocabulary, and so on. (Lennon 1990, 389-390) Thinking of a speaker as fluent who frequently uses inaccurate sentence structure or a limited vocabulary, for example, may seem counterintuitive, but for the language

¹ In addition to fluency in its restricted sense, language proficiency may be comprised of grammatical accuracy, literacy, vocabulary size, ease of register modulation, native-like phonology, discourse competence, pragmatic awareness, and so on.

researcher these are separate considerations. It is this narrow definition that I will be focusing on here. The idea of “fluency” as a catch-all term for successful language acquisition will have to be set aside for the moment.

It is generally assumed that one is fluent in one’s native language. We know, however, that this is not the case for the HS. The “native language” in this case is the heritage language, and the dominant language is actually the L2 or another L1.² The very idea of describing and evaluating the fluency levels of these HSs, who are first language Welsh speakers, only further underscores the complicated situation these people are in—being judged, so to speak, in a language they are also *native* speakers of. I will return to this point again and again—the HS is not fully proficient in her native language. The psychological state which follows from this scenario would be a fascinating study, albeit one beyond the scope of this project, but certainly the impact of this statement in language policy and minority language maintenance is one which I feel capable of addressing and will do so in my discussion of potential implications of HL research in the Conclusions section of this dissertation. Needless to say, research into variable fluency and its measurement occurs primarily in the field of second language acquisition and it is from that work that I draw the measurements to describe fluency which will be used in this study.

In an article reviewing the body of research on second language fluency and its pedagogical implications, David Wood (2001) focuses on determining what elements of speech proficiency recur as the most relevant to the concept of fluency. He describes these elements as the mental processes which regulate the automated retrieval of language chunks from a repertoire of formulaic language. To him, language is stored in pre-fabricated phrases and idioms, which

² This usage of L1 assumes that a speaker raised bilingually can have 2 (or more) languages which are both considered to be first languages (L1s) regardless of the balance in the bilingual system or whether one has dominant status. “Second” or “third language,” as used in this dissertation, is only meant to refer to the sequence of acquisition, and is not a judgment about relative proficiency.

helps with recall speed, and this automaticity of linguistic recall is the main factor deciding the fluency of speech. The strings of these pieces of language are punctuated in natural speech by pauses and hesitations, and it is by measuring those pauses and hesitations that we can make quantifiable judgments about speaker fluency. The reason pauses can be used as indicators of fluency is fairly straightforward—the more fluent the speaker, the less time is needed to plan and process linguistic information and to balance attention to language and other distractions. Free-flowing language is precisely what fluent speech is supposed to be. But there are other reasons for pausing, of course—dramatic effect, personal style, or thinking through a difficult concept, for example. In and of themselves, pauses and hesitations are not strictly indicators of a lesser fluency. They also may be employed as a stylistic choice by a very fluent speaker. Just like the other measures we will be using, pausing phenomena are justifiable metrics of fluency, but they must be counted in conjunction with other measurements in order to not overstate their evaluative capacity.³

The pauses themselves need not be counted, however, in order to measure pausing phenomena in our account of fluency. They can be accounted for indirectly. Naturally, pauses and hesitations affect speech rate, which is a measureable factor, and because pauses are the natural boundaries between utterances (as indicated in the transcriptions of Appendix II), the shorter lengths of a less proficient speaker's utterances will also indicate the frequency of pausing, i.e., shorter utterances mean more pauses. Therefore, Speech Rate (words per minute) and Mean Length of Utterance (MLU) (number of words between pauses) will both be considered in our evaluation of HS fluency, and pause phenomena themselves will not be counted separately because they are already measured indirectly by these two criteria. This is the very methodology

³ Pauses are defined in this project as silences in the speech flow which last longer than one second. Pauses are categorized in the data in 1, 2, 3, and 4-second lengths (indicated with one “#” per second in the transcriptions). Filled pauses are also considered pauses and carry the same significance as silent pauses. These are instances of “um”, “uh”, “hm”, and so on (indicated in the transcriptions as “um@fp,” e.g.).

used in Towell et al. (1996) in analyzing the fluency of advanced students of L2 French—what they termed Mean Length of Run and Speech Rate. And like Wood (2001), these researchers premised their reliance on temporal variables as paramount in indicating fluency by connecting the meaning of fluency to the proceduralization of linguistic recall. In a study of Hungarian students' L2 English fluency, Kormos and Dénes (2004) found that the best predictors of fluency judgments by language teachers were the measures speech rate, mean length of utterance, phonation time ratio and the numbers of stressed words per minute—again, temporal factors indicating the pace of the speech flow. But this study also found that the pauses themselves, filled or unfilled, were not reliable indicators of fluency judgments by the language teachers. Pausing may be stylistic, indicative of deep thought or rhetorical effect, and not necessarily an indication of fluency itself, as the judgments clearly indicate. Again, pausing phenomena and the measurements they affect can not be measured in isolation as an indicator of fluency, so I will be using MLU and SR in conjunction with other measures which I describe below.

Another possible means of measuring fluency is the cloze test.⁴ This method is commonly employed in assessing HS fluency but I have chosen not to use it here because of the difficulty inherent in making a dialect-neutral version of the task. Both for vocabulary and syntactic considerations, the cloze test would have skewed the results to privilege whichever dialect I had chosen in constructing the task, as well as forced the informants to complete a written task in colloquial rather than literary Welsh, a task which may have seemed irregular if not impossible depending on their level of familiarity with written Welsh. HSs are not often comfortable with the written language, either in the literary register or transcribed vernacular, which would affect their performance in this domain. (see Rothman 2007 on HSs of Brazilian

⁴ A cloze test is essentially a fill in the blank test, in which a participant is asked to replace the missing words of a text. The task draws on the speaker's ability to understand the vocabulary and grammar of the tested language as well as her ability to provide an appropriate utterance in the given context.

Portuguese) A cloze test would have been successful in sorting the speakers into levels of language ability, but by what measure I could not have been certain.

If we accept this narrow definition of the term “fluency,” determined by recall speed and ease of speech flow, and promote temporal variables over those of grammatical accuracy or expressive creativity, then we can borrow Segalowitz’s (2010) definition and restate our goal of establishing the measures of fluency as determining what are

the “features of ... oral performance [which] serve as reliable indicators of how efficiently the speaker is able to mobilize and temporally integrate, in a nearly simultaneous way, the underlying processes of planning and assembling an utterance in order to perform a communicatively acceptable speech act.” (Segalowitz 2010, 47)

Segalowitz further refines his concept of fluency to be comprised of three separate fluencies: i) cognitive fluency, or the ability to efficiently mobilize and integrate the underlying cognitive processes responsible for producing utterances with the characteristics they have, ii) utterance fluency, having to do with the features of an utterance, temporal, pausing, hesitation and repair characteristics, and iii) perceived fluency, which is the inferences listeners make about the speaker’s cognitive fluency based on their utterance fluency. (Segalowitz 2010, 48) These can be simplified into measures of temporality, however, either of thought and processing or production and reception, and so the distinctions need not bother us here. The important observation is that, for Segalowitz, fluency is determined by temporal measures. At the very least, however, we should take away from his approach an appreciation of the dense layers of processing that go into a simple communicative interaction and understand that the term “fluent” used to describe such an interaction is woefully under-descriptive to capture that operation.

After this lengthy introduction to the concept of fluency, I am going to avoid using the term as something self-evident for the duration of the chapter and instead apply six quantifiable measures of speech as a proxy for the concept. In order to account for processing speed as a

factor in perceived fluency, I will use the temporal measures of Speech Rate (SR) and Mean Length of Utterance (MLU). The speed and ease of access to grammar and vocabulary will be measured by counts of Vocabulary Delay, Retraces, and Retraces With Correction, and the level to which Welsh grammar has been proceduralized will be measured by the Frequency of Embedded Clauses. Each of these will be explained in greater detail in the following pages. The choice of these six measures follows from an understanding of fluency as a product of cognitive processing and the automaticity of linguistic recall, but each of these measures singled out and examined in isolation would not be very informative. It is only in combination that a full picture of fluency emerges.

5.1 fluency measures

Before turning to the six metrics of fluency I have chosen to analyze, the reasons for not using other, easily measured variables should be addressed. The narrative task performed by the 20 HSs and the 20 Baseline Controls has been described in the introduction to Part II, but I will add here a description of those characteristics of the narrative samples which will not be included as part of the fluency complex. The time taken to perform the task and the total length of the produced narrative may seem like reasonable measures to differentiate the informants by proficiency level, but we can see that this is not the case in the box-and-whisker plots (boxplots)⁵ of figures 5.1 and 5.2.

⁵ Box-and-whisker plots represent data by their quartiles—the 25th to 75th quartile range being represented within the box, and the lower and upper quartiles by the extension of the whiskers above and below that box. The dark line through the box represents the 50th percentile, or the median of the data. Averages and the exact range of the values on the y-axis are not explicitly indicated.

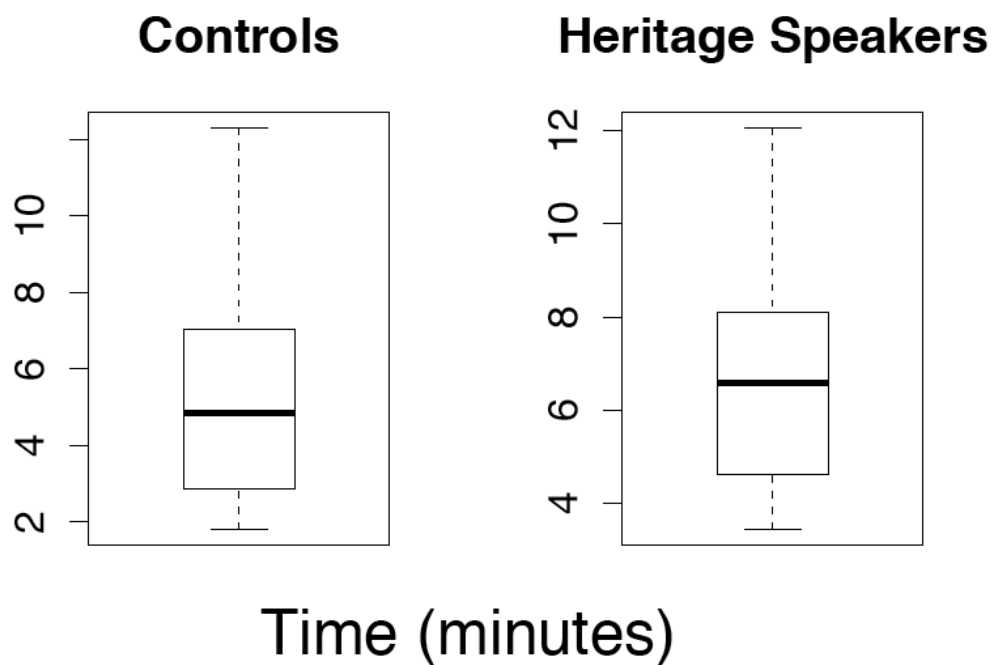


Figure 5.1 Box plots of the time (in minutes) taken by the Controls and the heritage speakers (HSs) to complete the narrative task

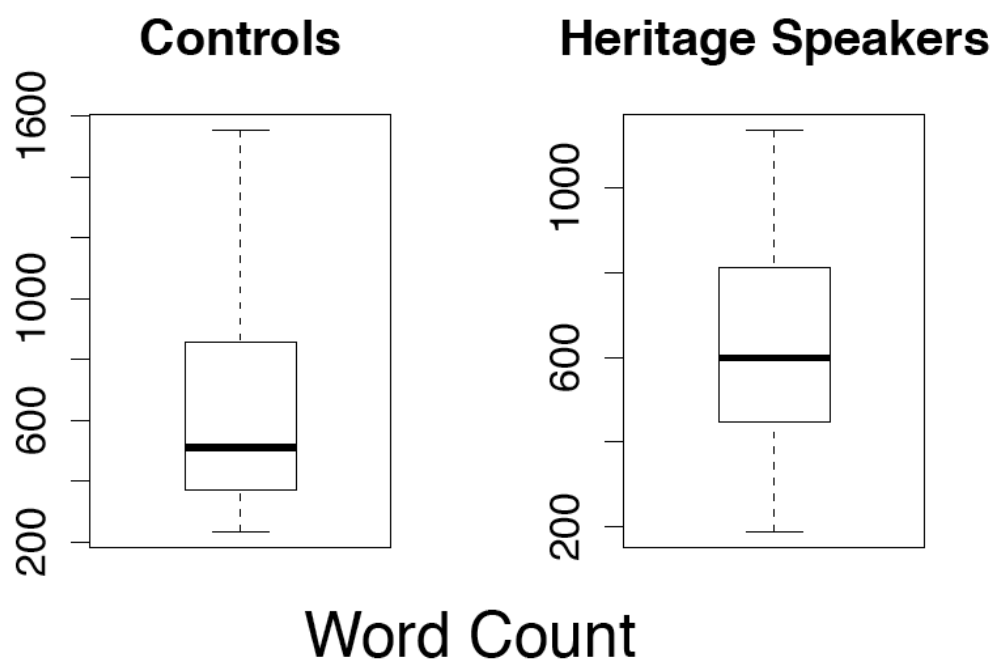


Figure 5.2 Box plots of the total word count for the narratives produced by the heritage speakers (HSs) and the Controls

There is too much overlap between the HSs and the Controls to reasonably distinguish the two groups by either of these measures. The average time taken to complete the narrative task by a HS was 6:39 (minutes), and that taken by the Controls was 5:14, but this difference is largely coincidence. We also see that the Controls as a whole took anywhere from 2:05 to 12:17, and the HSs between 3:27 and 12:03. The ranges overlap almost entirely. The same can be said for word count. The Controls averaged a total of 636.2 words and the HSs 640.25, but both ranged widely—from 298 to 1135 (HSs) and from 235 to 1551 (Controls). The differences between informants are reflective of personal choice rather than the limitations or abilities of the speaker. An informant may have taken more time because planning her story was more laborious, or because she was able to elaborate in greater detail and took the time to do that. Likewise, an informant may have used more total words because information dense structures like embedded clauses were not available in her heritage grammar, or simply because she was perfectly able to say a great deal in her dominant language. Figures 5.1 and 5.2 show essentially the same spread, and indicate that the length of the narrative, in time and word count, is more a measure of individual choice than an indication of fluency or overall proficiency.

The metrics which do show a clear difference between the Controls and the HSs are those which we have determined to be good indicators, when taken as a group, of fluency. Figure 5.3 shows the speed at which the informants spoke Welsh. There is a clear difference between the Controls and the HSs, which is a good sign of its strength as a measure of fluency, but it is important to note that there is also a large range of overlap.

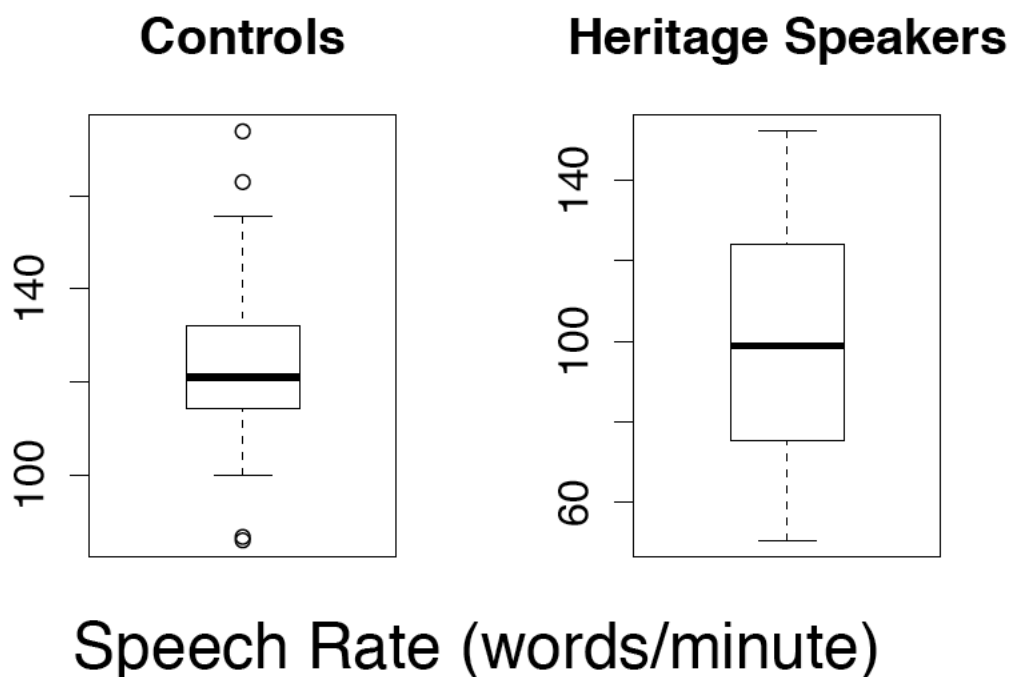


Figure 5.3 Speech Rate (words per minute) of both the Controls and Heritage Speaker (HS) Informants

The Controls spoke at an average Speech Rate of 124.03 words/minute, though the individual speakers varied a great deal. The slowest Control spoke at 85.98 words/minute, the fastest at 173.82. This is a broad range, but not more so than that of the HSs, who averaged a Speech Rate of 97.89 words/minute, but varied individually between 50.63 and 152.16. The fastest among the HSs had a higher Speech Rate than the average for the Controls, and the slowest of the Controls had a lower Speech Rate than the average for the HSs. The extent of the overlap in the variance within the two groups is evidence that Speech Rate alone does not reliably indicate fluency—as I was the listener of the narratives produced in this study, and because fluency is primarily determined by the listener’s impression, I am able to say that *none* of the HSs seemed more fluent than *any* of the Controls. Speech Rate only partially sorts the participants into levels of fluency, but it is a good starting point.

Speech Rate is, to some degree, an indicator of personal style and/or cognitive speed in addition to being a helpful indicator of fluency and overall proficiency. Some of the Controls chose to speak at a slower pace than they were capable of for dramatic effect, to build suspense, or for other stylistic reasons. Similarly, some of the HSs were nervous enough to rush their narratives and gave the impression that they are more fluent than they would otherwise be by speaking more quickly than they naturally would. It is also possible that a HS or control might have chosen to speak as though they were telling the story to children, which would almost certainly affect the frequency and placement of pauses, and consequently Speech Rate as well. Again we can see that this single measure, Speech Rate, is not, on its own, sufficient or complete as a measure of fluency, though the difference in the averages for the two groups indicates that the measure is indeed useful as part of the fluency construct.

Likewise, MLU is a very good indicator of fluency, but only when taken together with our other measures. There is enough overlap in the ranges of MLU represented by the plots in figure 5.4 that the two groups—HSs and fully proficient speakers of Welsh—are not fully differentiated by this measure. The native speakers who are Welsh dominant or nearly balanced bilinguals (Controls) clearly outstrip the HSs in the length of their utterances. Utterances, as I mentioned above, are determined by pauses, whereby a complete utterance is the run of spoken language between each of these pauses. Note from figure 5.4 that the averages among those groups are 10.47 words/utterance for the Controls and 6.69 words/utterance for the HSs. Clearly, the stronger Welsh speakers are better able to plan and construct their utterances, thus producing longer runs, than the HSs. This observation should come as no surprise but it is worth recognizing it as a component of the fluency construct and that there is, again, enough overlap between our two groups that we cannot take this measure to be equivalent to fluency on its own.

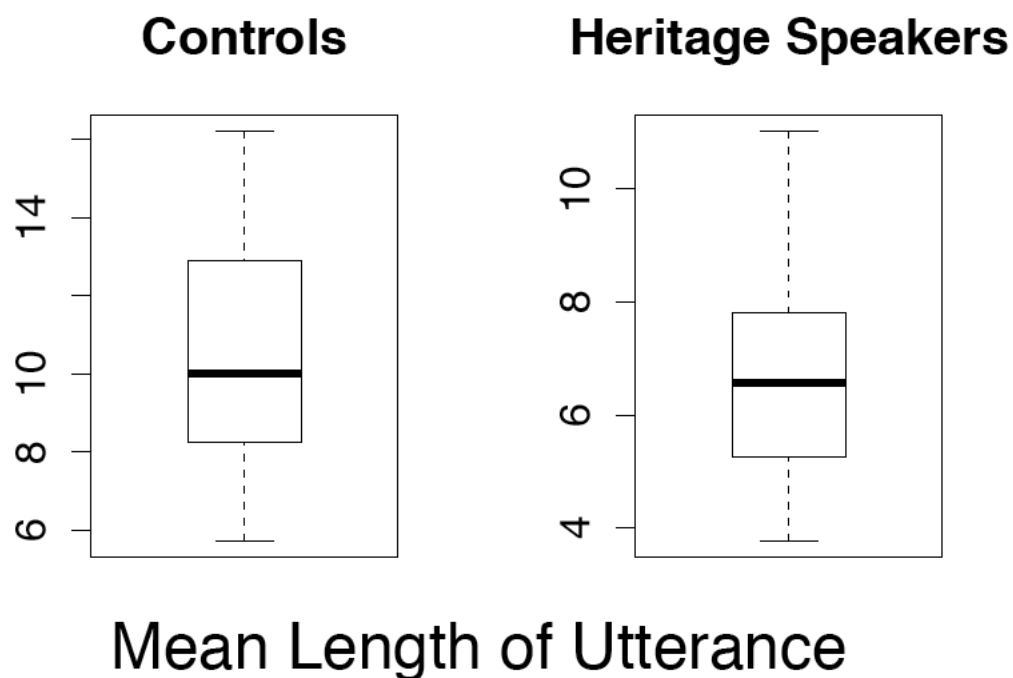


Figure 5.4 Mean Length of Utterance (words per utterance unit) spoken in the narratives of the Controls and the Heritage Speaker (HS) informants

Another strong fluency indicator which should be included in this complex of measures is the frequency with which the recall of vocabulary is delayed, what I have termed Vocabulary Delay. This is perhaps the strongest measure in distinguishing between the two groups of informants. I provide here both the total instances of Vocabulary Delay and the average of Vocabulary Delay per Utterance in figures 5.5 and 5.6 in order to better illustrate this point.

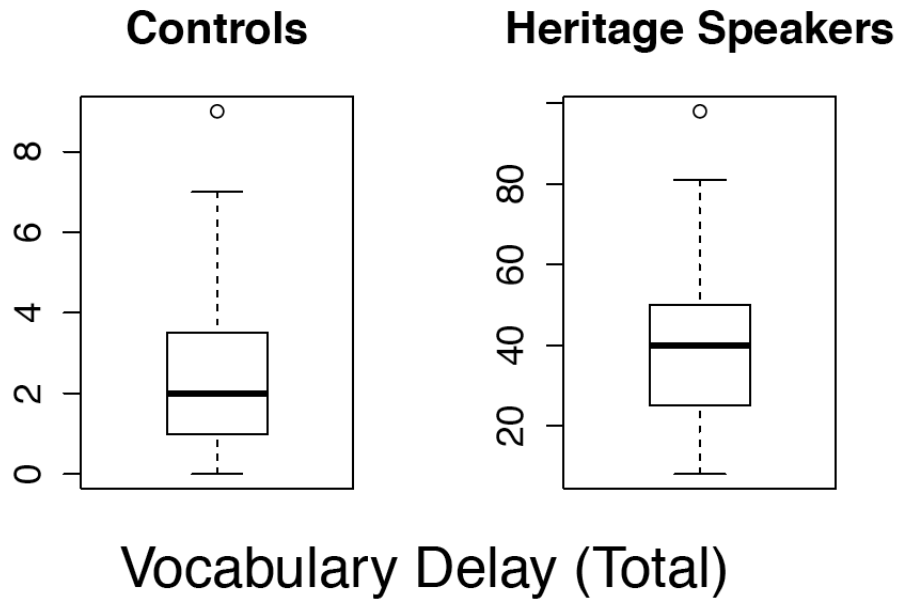


Figure 5.5 Total instances of Vocabulary Delay in the narratives of the Heritage Speakers and the Controls

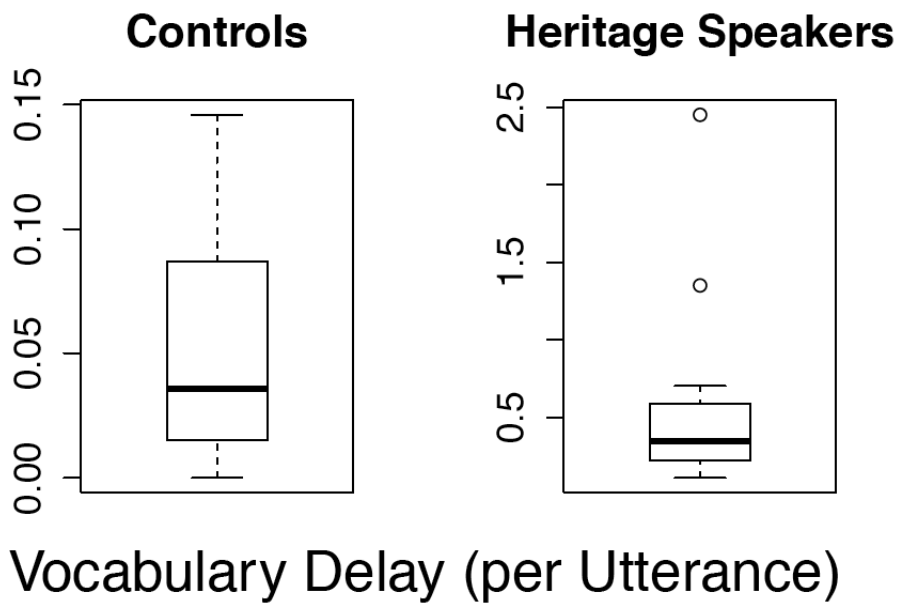


Figure 5.6 Instances of Vocabulary Delay per Utterance (average) in the narratives of the Control group and Heritage Speaker group

In determining what constituted an instance of vocabulary delay, I again relied on pausing phenomena. If the informant paused, muttered, questioned themselves about a word, or switched into English in a self-conscious way it was counted as Vocabulary Delay. It is important to note, however, that every instance of code-switching was not included in that count. If a vocabulary item was produced in English and without any noticeable pause, the University of Wales Dictionary (Geiriadur Prifysgol Cymru) was consulted in order to establish whether that word is officially considered a borrowing and acceptable in colloquial Welsh. The results show a dramatic difference between the two groups.

In performing the same task, the HSs stumbled with vocabulary recall an average of 40.4 times during the course of their narratives (0.51/utterance), but the Controls only experienced Vocabulary Delay an average of 2.65 times (0.05/utterance). Indeed the single HS who struggled least with recall delay still experienced Vocabulary Delay 8 times total (0.12 per utterance), well above the average for the Controls. I would posit that the reason the Controls had any trouble at all is because of the unusual vocabulary required by the *Frog, Where Are You?* story. Almost all of these instances of delayed recall by the daily Welsh users (Controls) were for a small group of the same images—the stag, the beehive, and the groundhog, in particular, were problematic. The HSs, on the other hand, had trouble recalling a much wider range of vocabulary, including verbs, and far more frequently, as we see in figures 5.5 and 5.6.

Generally, it is the ‘average per utterance’ figures which are important in these analyses. The total counts for the narratives can be misleading, because, as I explained above, the lengths of the narratives are as much a stylistic choice as a reflection of the speaker’s ability. In this case, however, I’ve included information about the total instances of Vocabulary Delay in addition to the averages per utterance because of the close connection between pausing and identifying an instance of vocabulary delay. Not only are the HS utterances much shorter, in general, than the controls’, but the pauses which indicate vocabulary recall trouble may also signal a new

utterance. This means that an utterance can start with vocabulary delay, which might seem counterintuitive and deserves this short explanation.

The next two measures of fluency are variations of the same phenomenon, Retracing. Speakers, both the HSs and the Controls, will repeat a bit of language that they have just produced in order to regroup after a pause, to take the time to plan what they will say next, or to correct a mistake in their initial utterance. It is also the interpretation of a stutter in this analysis. Two kinds of Retraces have been counted here, those with and those without Corrections to the words prior. Both types indicate a level of uncertainty with the language, a sort of “do-over” for the linguistically insecure. We see in figures 5.7 and 5.8 that the differences between the two informant groups confirms that Retraces are indeed an indicator of lesser fluency. As in the above discussion of Vocabulary Delay, the average number of Retraces per Utterance (figure 5.7) as well as the total instances of Retraces in each narrative (figure 5.8) are both provided here.

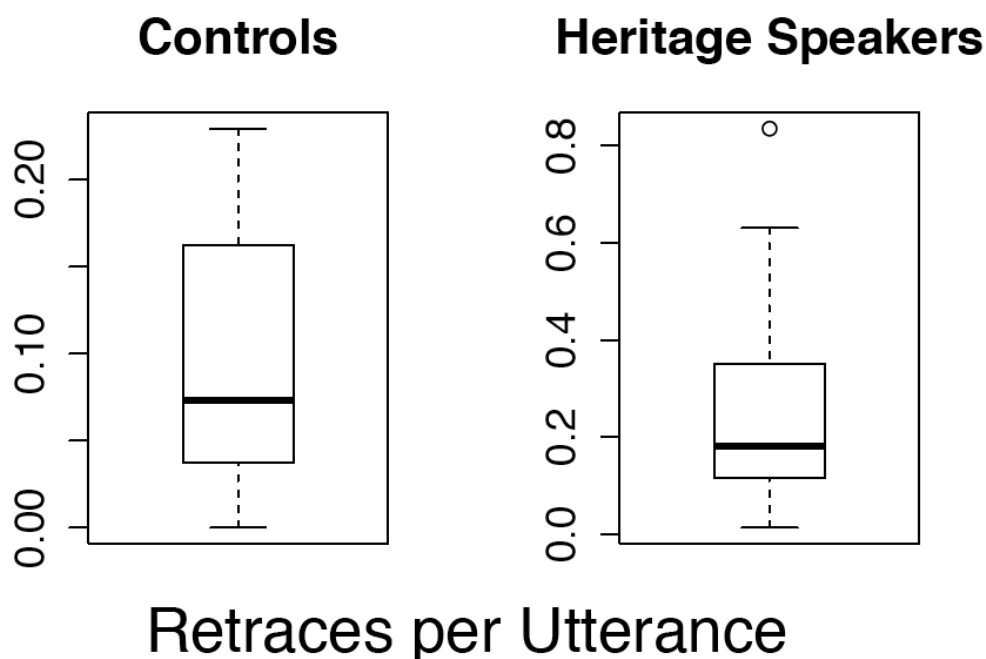


Figure 5.7 Retraces per Utterance averaged for each of both the heritage speaker (HS) and control groups

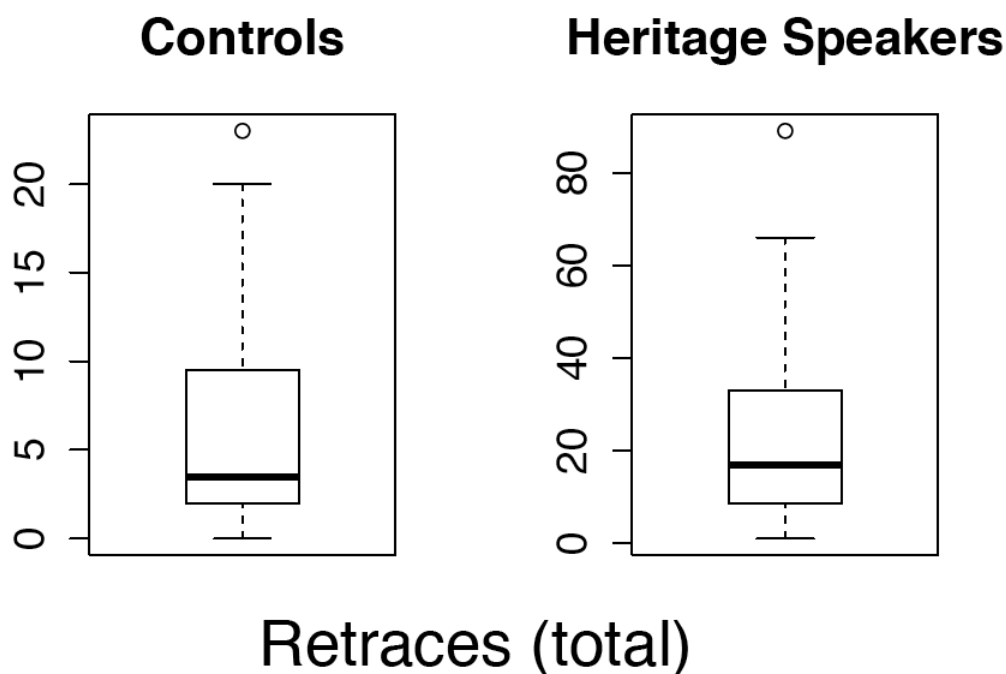


Figure 5.8 Total instances of Retracing in the narratives of the two groups of informants

Again, the differences are striking. The average number of Retraces per Utterance produced by the Controls is almost negligible, but that is not the case with the HSs. Indeed, the overlap between the two groups is also fairly limited—75% of the Controls retraced less frequently than 75% of the HSs (the seventy-fifth percentile for the Controls is roughly the same as the twenty fifth percentile for the HSs). Retracing is thus a good descriptive measure of the fluency divergence between our heritage and baseline speakers. But that is not to say that the overlap is not significant, and again we must include Retraces as only one in a group of fluency indicators.

The measure of Retraces with Corrections also distinguishes between our two informant groups well. We see the data in figures 5.9 and 5.10.

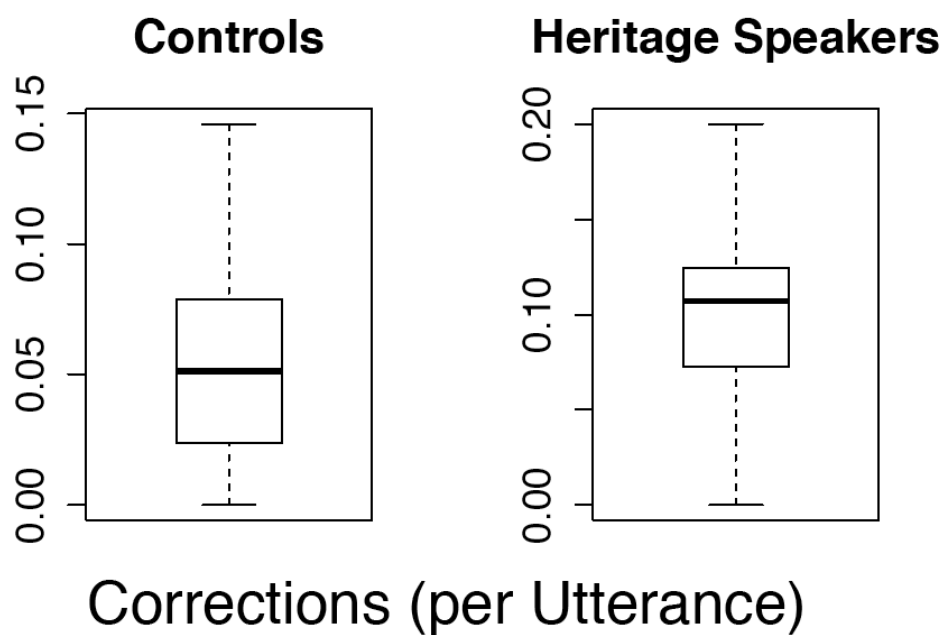


Figure 5.9 Retraces with Correction per Utterance averaged for each of both the control and heritage speaker (HS) informant groups

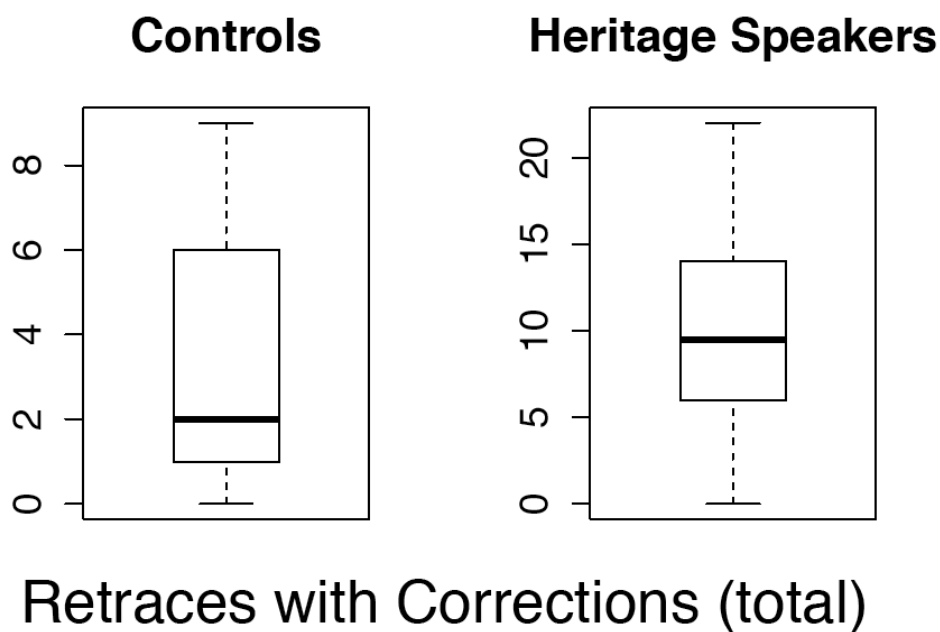


Figure 5.10 Total instances of Retraces with Correction in the narratives of the two informant groups

Naturally, the more proficient speakers, the baseline Controls, correct themselves less often. They should have less need to. Interestingly, however, this measure as an indicator of proficiency among the HS group might be more problematic than at first it seems. Some researchers of L2 acquisition and foreign language pedagogy would point out that self-correcting is an indicator of *increased* proficiency. The ability to identify errors in one's own speech represents a developing monitor of accurate linguistic output and a metalinguistic, critical ear. The frequency of corrections may then, in fact, increase as a learner becomes more aware of errors, then peak and drop off as that speaker produces more and more accurate language in her initial utterances. (Krashen 1982) How this translates to heritage language is another question. Without additional exposure or entry into a classroom language learning environment, the heritage language would probably not be evolving along that curve I've just described. The proficiency of the HS will change over time in accordance with the bilingual continuum model (see Chapter 4), but not necessarily according to the same model. (A more detailed analysis of non-native-like forms produced by the HSs will follow in the next two chapters.)

The variables determining how likely a HS is to self-correct could be more varied than those of the classroom learner. The longer the HS has been out of contact with Welsh the less likely she may be to notice the errors, and thus let them stand. Alternatively, the determining factor may be how pedantic her regular Welsh speaking interlocutors are, and whether or not she is often made aware of her speech mistakes. The differences between the two informant groups on this measure is solid enough to include it in our list of fluency metrics because we have defined fluency to be based on listener perception, but, given the discussion above, we should discount it as a measure of *proficiency*. Retracing with Correction is indeed perceived by the listener and included in his judgment about the speaker's fluency, but the reasons behind those corrections are not relevant in that situation. It is simply a counterintuitive idea that we might

observe the frequency of corrections to be higher for some of the *more* proficient HSs, who will be perceived to be *less* fluent as a result.

The final metric of fluency I wish to discuss here is the only one that may be argued to be a qualitative judgment on the standard of language produced. Speech Rate, Mean Length of Utterance, and Vocabulary Delay are fundamentally temporal measures; Retraces and Retraces with Corrections are measures evaluating the speaker's planning ability; but the frequency of Embedded Clauses is a measure of grammatical complexity and thus more directly linked to the broader concept of language proficiency, rather than to fluency alone. It is included among the six measures of fluency, however, because the accuracy of the grammatical forms is not evaluated here. Frequency of embedded clauses is simply a measure of the successful packaging of information into a denser speech flow—a component of the fluidity and native-like pace described at the beginning of this chapter and identified as the listener perception of fluency.

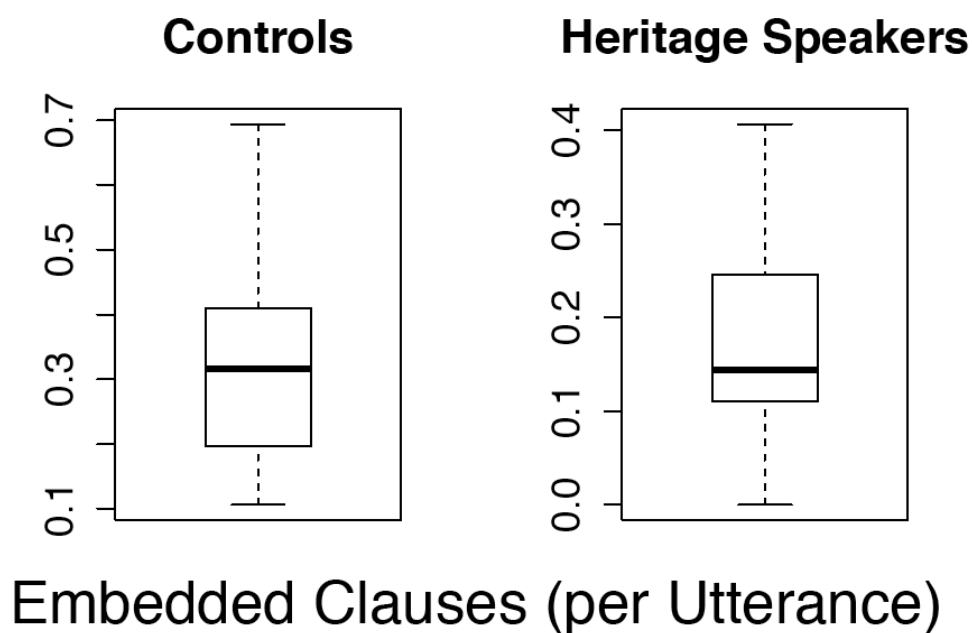


Figure 5.11 Frequency of Embedded Clauses per Utterance, averaged for each informant of the two groups

Figure 5.11 shows that the Controls generally produce twice as many embeddings per utterance as the HSs. The average Frequency of Embedded Clauses among the HS group is 0.17 embeddings per utterance. The average among the baseline group is 0.34 embeddings per utterance. Not only do these numbers indicate the divergence in overall grammatical proficiency between the two groups, but, as a metric of fluency, figure 5.11 illustrates that the HSs are less efficient communicators. The listener will perceive heritage Welsh to be less fluent because of its reliance on simple declarative statements, whereas the baseline varies its grammatical choices as a matter of style. This affects the rhythm of the speech flow and thus how fluid its production, or fluency, is understood to be.

These six measures may be considered to be effectively equivalent to the otherwise abstract concept of fluency. Taken together, they should be considered a good proxy for this abstraction and whenever I use the term “fluency” hereafter in this dissertation it is not in the broader and casual sense, but rather to this complex of metrics that I refer. Recall, however, that there is some amount of overlap between the heritage speakers and the Controls in each of the box plots represented in figures 5.3 to 5.11. Some of the HSs may perform better than most of the Controls on several of these six measures. This should not be surprising after the discussion of the limits of the narrow definition of fluency which began this chapter. Fluency, in itself, is not the equivalent of language proficiency, merely one component. For example, the speed of an individual’s linguistic recall, and thus the speed of her utterance, will vary as much with innate cognitive speed or natural talent for linguistic expression (beyond that which is already characteristic of the human species, of course) as with her overall Welsh proficiency. This HS is not, however, more proficient than the Controls. It is an important point and one which requires some small criticism of the methodology I’ve used here.

The scope of my claims in this project must be tempered by the acknowledgment that the narrative task used to assess the proficiency of these HSs is only that—a production task. I did not

assess comprehension of complicated and/or rapid natural utterances, nor did I assess the speakers' grammatical knowledge in a cloze test, as I've already mentioned. HSs who are naturally quick speakers will have an advantage over those who may speak slowly but who may have superior comprehension ability. The informants have been able to use their strengths in forming their own narrative, and, beyond the vocabulary, the task is not one in which the experimenter is able to directly challenge the speaker or pressure her out of her comfort zone. These are things that we need to keep in mind. These data have the potential to mislead the reader into perceiving a more proficient HS pool than is truly represented. Some of the heritage Welsh speakers may seem as fluent as the Controls according to some of our measures, but they are certainly not more proficient over all. My justification of this assertion follows in chapters 6 and 7, with analyses of divergence from baseline norms both in the system of initial consonant mutation and in the formation of verbal structure.

What this description of fluency does provide, however, is an appreciation of one particular strength of the heritage language speaker. As was discussed in chapter 1, the HS outpaces her L2 counterparts in *perceived* proficiency, i.e., fluency. The heritage language learner in the classroom will outperform her peers in the narrow definition of fluency, but she is *not* necessarily more proficient overall, and certainly not as proficient as native and complete acquirers. The extent of the overlap between the HS and Control groups on several of the fluency measures is evidence of the potential for misperceiving HS proficiency, and thus potential for speakers to be misjudged and misplaced in more advanced language class levels than appropriate. Fluency is also, however, not equal among HSs. The variance among speaker abilities again supports the use of the heritage language continuum model, and my re-evaluation of fluency as a measurable characteristic of speaker ability quantifies one of the components determining the placement of each HS along that continuum.

5.2 variables on fluency

This chapter is meant primarily as a description of fluency measures as they are observed in heritage Welsh speakers, but I am also prepared to propose some preliminary correlations that might be more applicable in the realm of language maintenance and adult heritage language education. The informants, both HSs and Controls, provided information about their regular use of Welsh as well as some details of their personal history with the language. I considered four variables, in particular, to be relevant to the question of fluency. My hypothesis was that the amount of time spent using Welsh in conversation weekly—that is, practice speaking, listening to, and processing the spoken language in real time—would be of paramount importance in maintaining fluency, and thus would correlate with better performance on the narrative task. Beyond this initial, intuitive proposal, three other factors were examined for their importance and were predicted to also have a positive effect on the fluency measures: Media Exposure per week, Age at Language Shift, and amount of Welsh Language Education.

A great deal of money and effort is spent in the production of Welsh language television, radio, and publications in the hope that they contribute to the maintenance of the language. The Welsh language television channel, S4C, has existed since the Welsh language movement succeeded in pressuring the British government to carry out their promise and provide for its founding in 1982. Radio Cymru (Radio Wales) was similarly founded by the BBC after pressure from language activists in 1977. Welsh language publications have existed throughout the twentieth century and before, but for decades have also been included in this wide-ranging effort to fortify the language against endangerment, and have benefitted from government assistance as a result. (cf. Jenkins and Williams 2000; Morris 2010; Williams 2000; Williams and Morris 2000) Exposure to these media is expected to improve Welsh language proficiency among its population of speakers as well as provide material for learners and less proficient speakers to use

in developing their language skills. Presumably, weekly exposure to these media should also have an impact on the fluency outcomes of our heritage Welsh speakers.

Welsh language education has been the darling of the Welsh language movement even more so than have Welsh language media. It has also been its greatest success. Mandatory Welsh language education for all schoolchildren in Wales has been in effect since 1988, though that language education can be as minimal as a couple of years of enrollment in a Welsh as a second language class. For the majority of Welsh schoolchildren, the Welsh language is not acquired to full proficiency, though interest is greater today than it has been in the past. The first Welsh medium (or bilingual) school was founded in 1939, but enrollment in Welsh medium education has dramatically increased over the past two decades. This classroom exposure to Welsh, either as a L2 subject itself or as the medium of instruction in other subjects, is presumed to be foundational to lifetime proficiency in the language, and Welsh proficiency is itself considered a great advantage—economically and socially—to those children once they emerge from the school system. The passage of several pieces of legislation in Parliament and later the Welsh Assembly over the last few decades has created a demand for Welsh speakers not only in government but also in business sectors. (cf. Griffiths 1986; Griffiths 1997; Jenkins and Williams 2000; Thomas and Williams 2013)

Early exposure is assumed to be hugely important to language outcomes, so children from non-Welsh speaking homes are just as likely to enroll in the bilingual schools as are children from Welsh home backgrounds. But the across-the-board access to formal school exposure to Welsh may complicate the distinctions between HSs, L2 learners, and native, fully proficient speakers. The general HS profile, which was introduced in Chapter 1, is partially characterized by a *lack* of formal education in the heritage language. My analysis of the Welsh Education variable, however, will take into account the variance in school exposure among the HS participants and

determine whether or not formal education is, indeed, a predictor of this particular component of proficiency outcome, i.e. fluency.

If we privilege early exposure to the Welsh language in school as a factor in proficiency outcomes, then we must also address the amount of Welsh language input received during early childhood at home. The age at which the HS shifted her language dominance from Welsh to English was asked during the fieldwork interviews, in lieu of the question more commonly used in heritage language research—age of arrival. Because Wales is a bilingual country, such that every speaker of Welsh is also fully proficient in English (with negligible exceptions), the HS's emigration to England may not have been the initial cause of language shift. I can not assume that all of the HS participants are sequential (rather than simultaneous) bilinguals, nor that they accurately recollect their (sometimes traumatic) period of dominance shift. Age of Shift is a particularly difficult measure to rely on retrospectively, but I feel that it is a necessary component of this project nonetheless. I include it as a variable on fluency in part because language shift has been the major theme of Welsh language research in the last fifty years, but also because early childhood exposure is a defining characteristic of the HS profile.

Given the lengthy discussion in Chapter 2 of the Critical Period Hypothesis, its flaws and its amendments, it should come as no surprise that I return to it here. The theory still looms large in language studies, in particular language pedagogy, and so I include the Age of Shift measure among these four factors which potentially affect the fluency of our heritage Welsh speakers. I still hesitate to suggest that the “critical period” is a clearly defined entity or that the child brain is particularly adept at language acquisition in an exclusively biological way, but the correlation between that childhood exposure and language outcomes can not be ignored. The confounds (or other correlated and potentially causal factors) that problematize a purely biological explanation for the childhood language advantage are also components of the HS profile, i.e., early childhood exposure to a home language initiates a lifelong psychological connection to that language, and is

potentially connected to a desire to maintain the language or to associate it with one's cultural identity. These circumstances, which contribute to the success of childhood language acquisition in addition to any biological advantage, also apply to the HS.

Any problems with these hypotheses will be discussed below, but, as a starting point, these four variables will be considered as potentially significant predictors of heritage language fluency: Conversational Use, Media Exposure, Welsh in School, and Age of Language Shift. The findings are represented in figures 5.12 through 5.33.

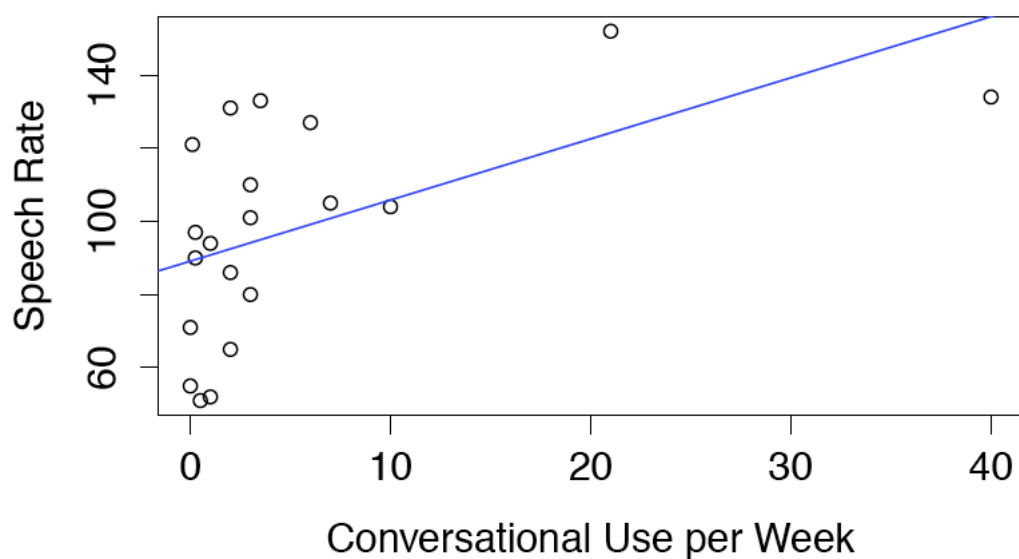


Figure 5.12 Speech Rate (words/minute) in the narratives of heritage Welsh speakers plotted against Conversational Practice per Week (hours)

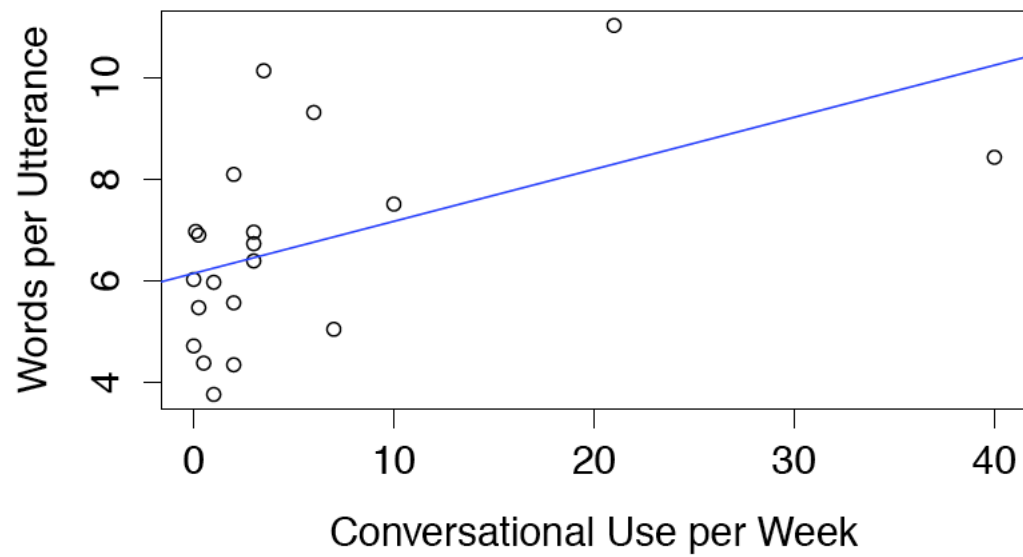
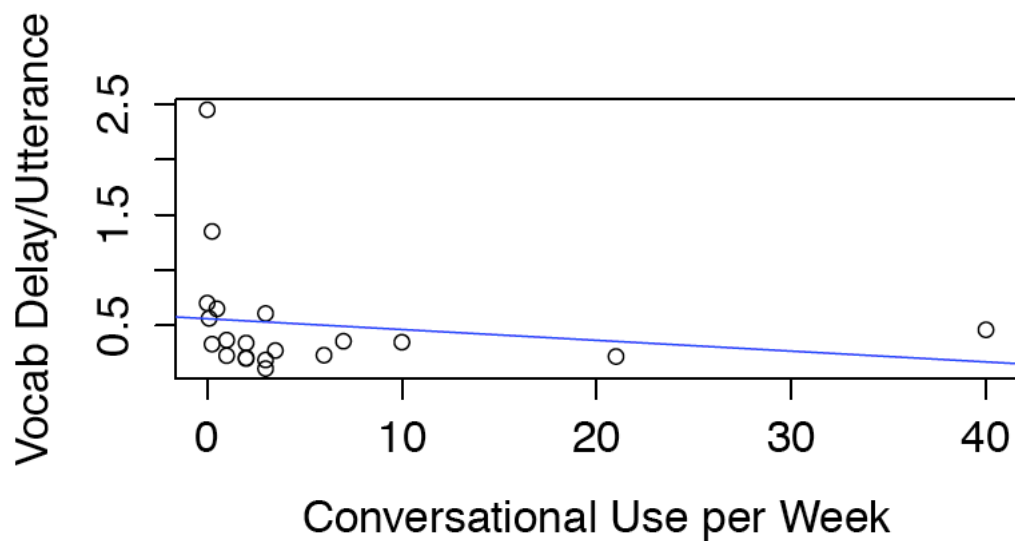
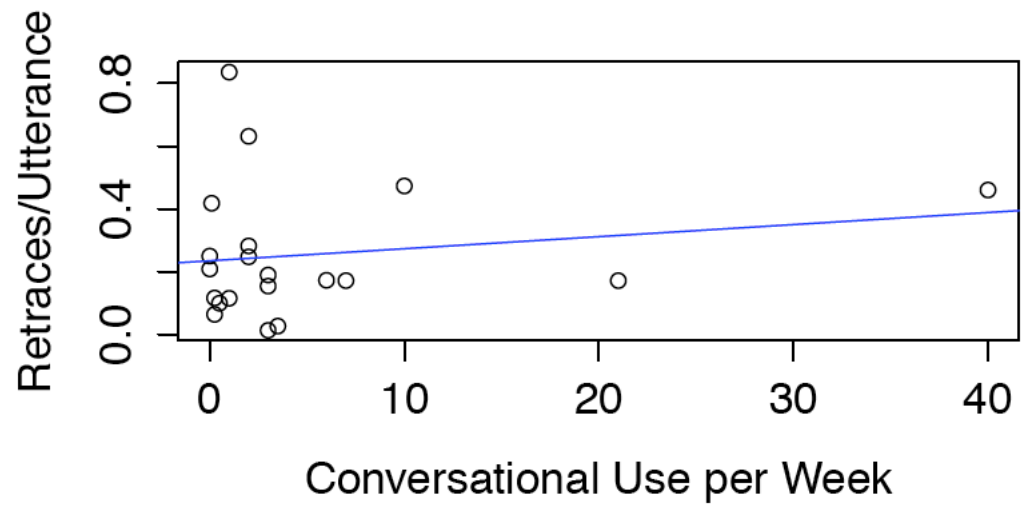


Figure 5.13 Mean Length of Utterance (MLU) (Words per Utterance) in the narratives of heritage Welsh speakers plotted against Conversational Practice per Week (hours)





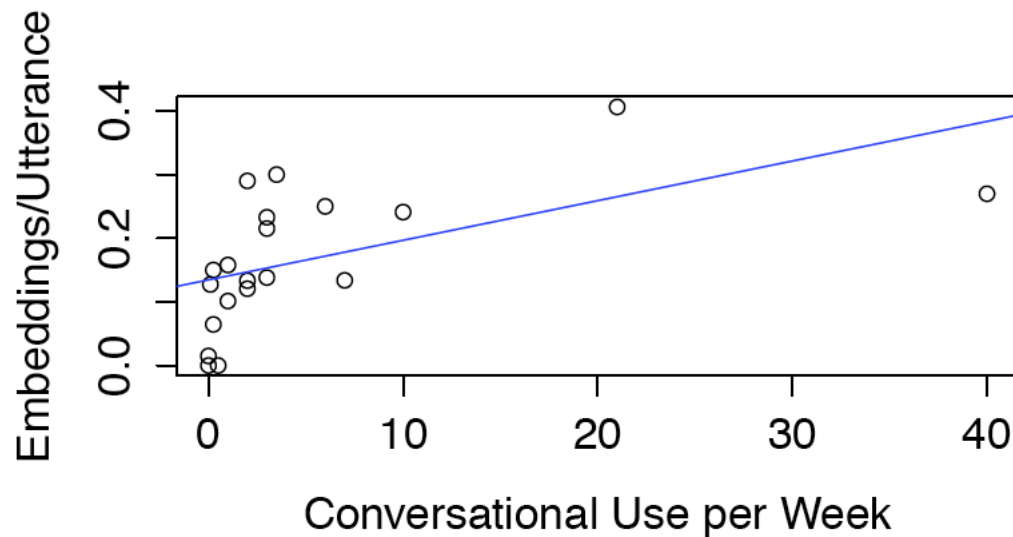


Figure 5.17 Embedded Clauses per Utterance (averaged) in the narratives of heritage Welsh speakers plotted against Conversational Practice per Week (hours)

What emerges from these data is somewhat surprising. While it is clear that Conversational Use per Week is a significant predictor for some of our measures of fluency, it is not for all. The only correlations between Conversational Use and our fluency measures which appear to be significant—i.e. they have a p -value⁶ of less than 0.05—are Mean Length of Utterance (p -value = 0.02589), Speech Rate (p -value = 0.01403), and Frequency of Embedded Clauses (p -value = 0.01197). Instances of Vocabulary Delay, Retracing, and Retracing with Corrections were not significantly correlated with the number of hours per week spent using Welsh in natural conversation. This may not be surprising considering the nature of conversational language production. Recall of the sort of vocabulary which is seldom used in conversation, but which is called for in the *Frog, Where are You?* narrative task could, arguably,

⁶ The p -value is a measurement used to determine the statistical significance of a correlation between two variables. It represents the probability of obtaining the observed data assuming the Null Hypothesis is true, i.e., that the observed correlation does not, in fact, represent a true relationship between the variables. For our purposes, a p -value below 0.05 is considered sufficient to indicate a significant correlation, and thus to reject the Null Hypothesis.

be unaided by regular conversation practice. By the same token, the metalinguistic monitor, represented here as instances of Retraces and Corrections, would not necessarily be as engaged while speaking casually as it would in literary or more formal language situations. This could either result in the HS being more likely to make mistakes, which she notices because the interview situation has made her more self-aware, or less likely to notice any mistakes, because she is unaccustomed to closely tracking her errors in this way. Retracing and Correcting are certainly components of fluency as I've defined it, but their problematic connection to overall proficiency is here, again, called into question.

I predicted that Conversational Use would be the strongest variable affecting fluency outcomes—the mantra of “practice, practice, practice” is nowhere more applied than in language learning—but conversational practice on its own is not sufficient to maintain overall fluency according to this analysis. This is a particularly important point within heritage language research because, as was discussed in Chapter 1, it is generally this kind of language use that characterizes the HS profile. And, indeed, Conversational Use does clearly correlate with greater MLU, Speech Rate, and Frequency of Embedded Clauses. I would even hypothesize that Vocabulary Delay in a less artificial narrative setting could be negatively correlated with, i.e., improved by, greater Conversational Use. It is also interesting to note (looking at those significantly affected measures in Figures 5.12, 5.13, and 5.17) that performance improves dramatically after only the first few hours of Conversational Use per week. These data suggest that fluency may be maintained with as little as 4 or 5 hours of conversation per week. Heritage Welsh speakers also have the resources of Welsh broadcast media and Welsh language publications, however, so their abilities could, arguably, be rounded out by this broader range of exposure. We will see if greater Welsh Media Exposure has a significant effect on the three measures unaffected by Conversational Use, as it is, in a way, a sort of complementary variable.

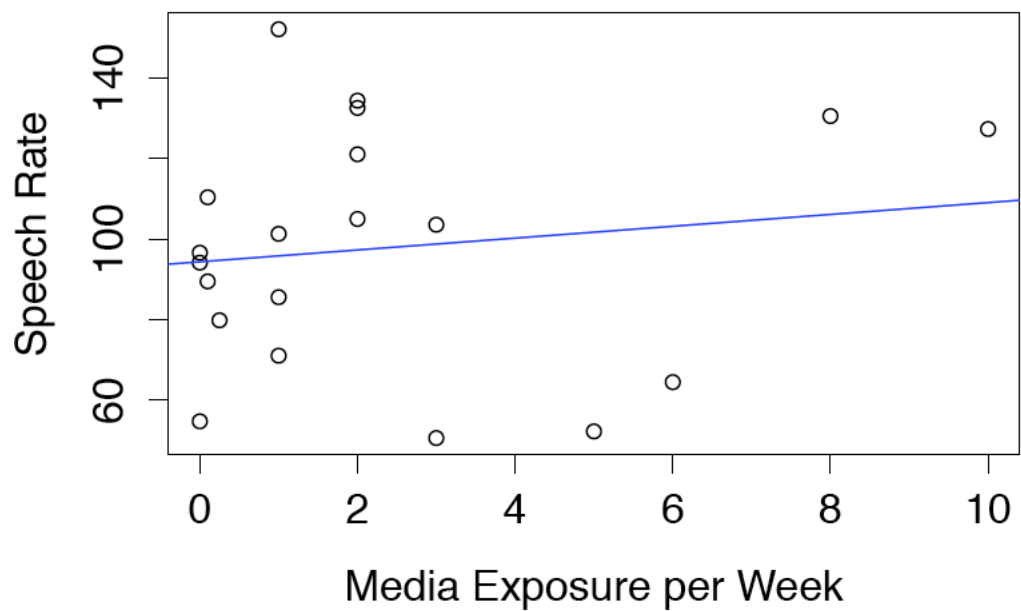


Figure 5.18 Speech Rate of the heritage Welsh narratives plotted against Media Exposure per Week (hours)

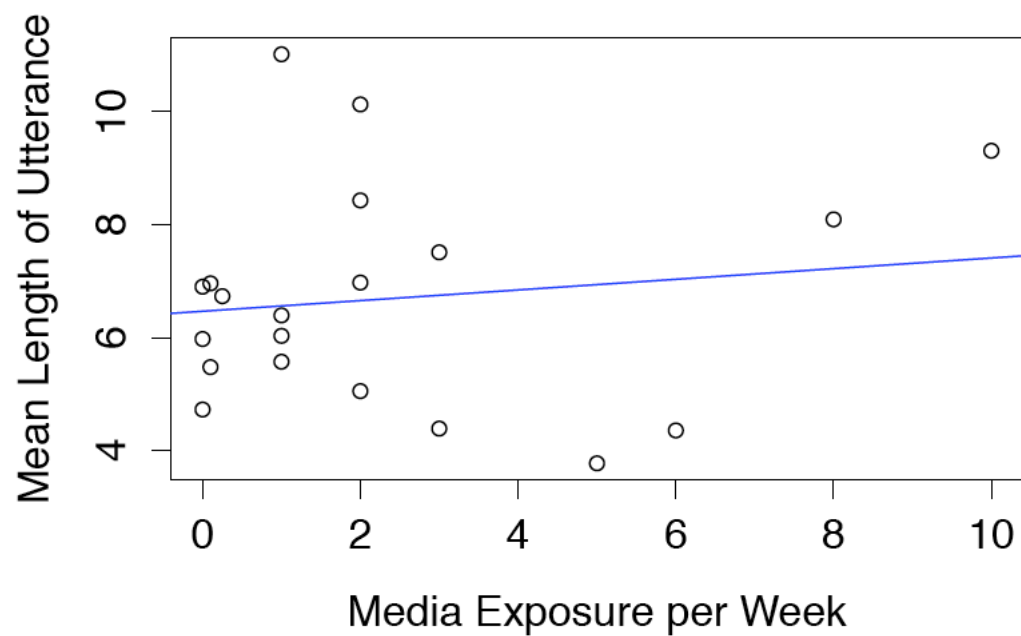


Figure 5.19 Mean Length of Utterance (averaged) in the heritage Welsh narratives plotted against Media Exposure per Week (hours)

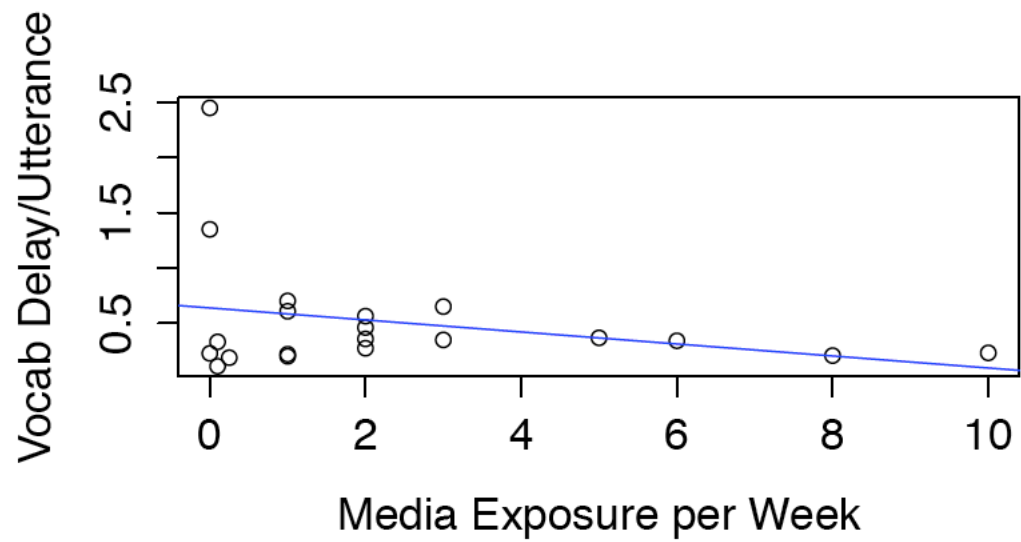


Figure 5.20 Vocabulary Delay per Utterance (averaged) in the heritage Welsh narratives plotted against Media Exposure per Week (hours)

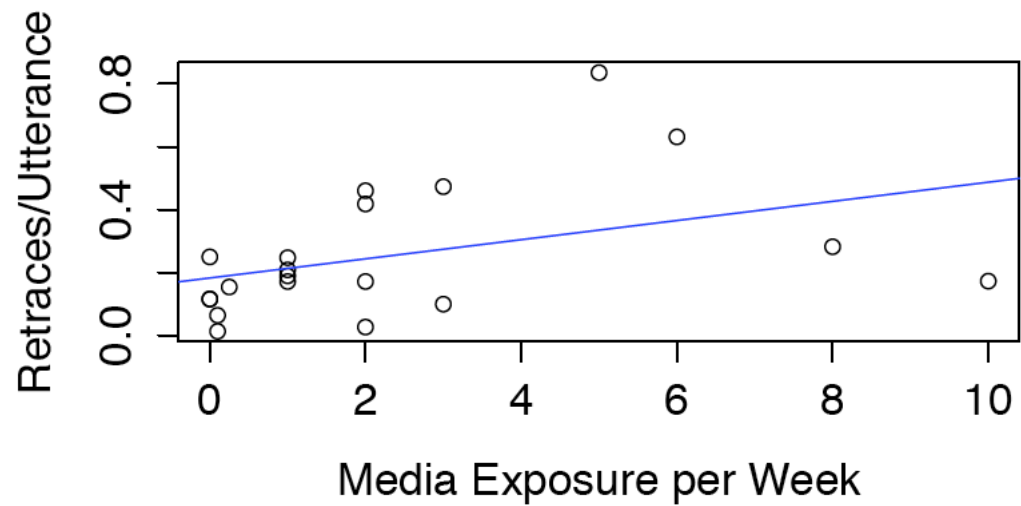


Figure 5.21 Instances of Retracing per Utterance (averaged) in the heritage Welsh narratives plotted against Media Exposure per Week (hours)

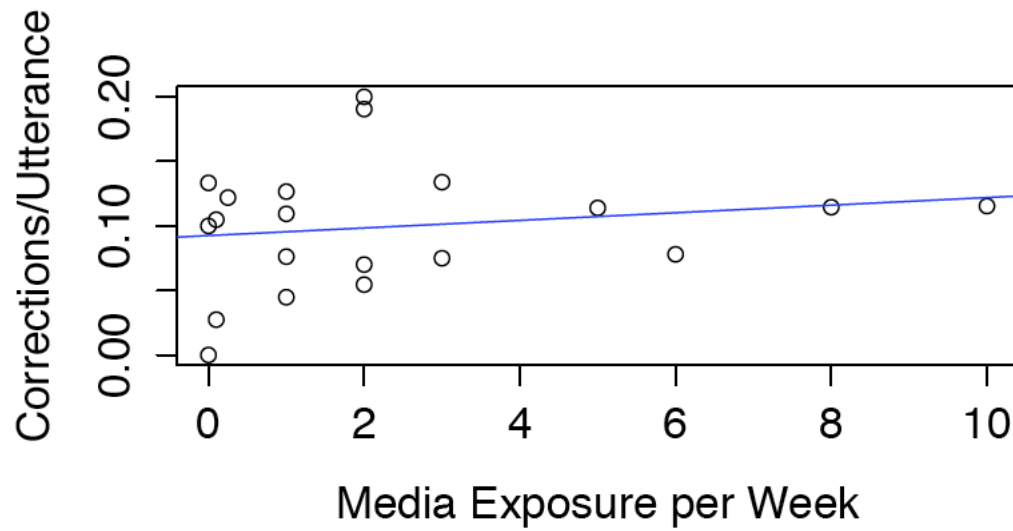


Figure 5.22 Instances of Retracing with Correction per Utterance (averaged) in the heritage Welsh narratives plotted against Media Exposure per Week (hours)

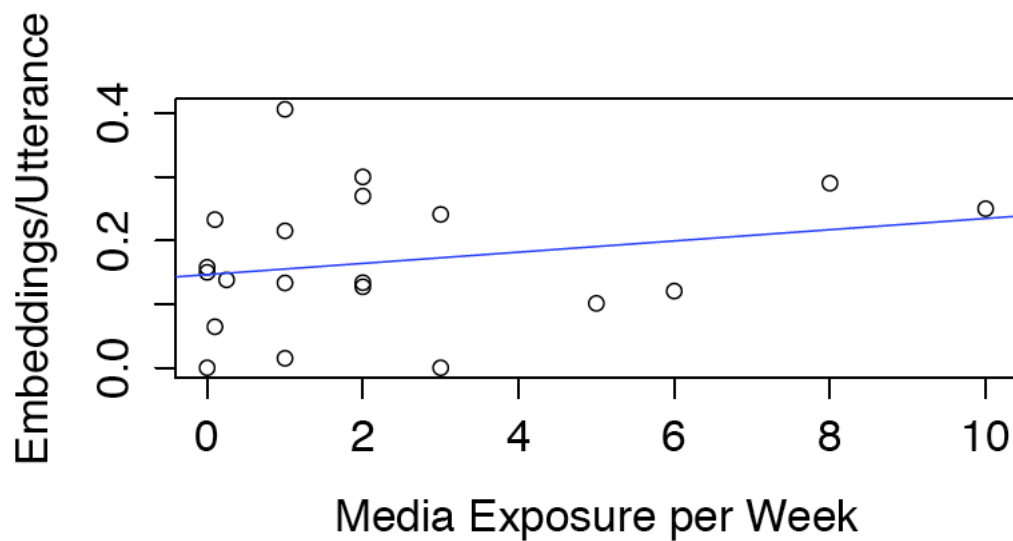


Figure 5.23 Embedded Clauses per Utterance (averaged) in the heritage Welsh narratives plotted against Media Exposure per Week (hours)

These results indicate that Media Exposure as a predictor variable of fluency is quite limited. In fact, none of these six measures is significantly affected by the variable of weekly Media Exposure. At first, this would seem to debunk the theory that Welsh language media—the radio and television stations, all the books, magazines, newspapers, websites, and so on—are vital to Welsh language maintenance, not only for the language community as a whole but also for the internal grammars of individual speakers. Welsh language media have not proven to be effective in producing fluency in this study of heritage Welsh speakers. I would not make such a claim, however, for several reasons. I have already pointed out that the narrative task presented to the informants is not one that engages all aspects of language proficiency. In particular, listening and reading comprehension remain entirely untested. Welsh language input in the form of radio and television programs is surely a valid form of receptive comprehension practice, albeit one that is more passive than conversational practice.

Several complications may be clouding the true relevance of Welsh media in heritage language maintenance. For example, regularly reading Welsh is undeniably a path to a larger vocabulary but not necessarily inclusive of the sort of vocabulary tested by the *Frog, Where Are You?* task. Perhaps more importantly, it is often the least proficient but most eager speakers who devote their time to slogging through whatever Welsh publications they can get their hands on. This is purely an issue of motivation. A heritage speaker with a very low level of perceived fluency may be an avid reader of their hometown *Papur Bro* (community Welsh language newspaper) precisely because they are trying to maintain or improve their Welsh. Likewise, a HS who ranked among the most fluent, according to our measures, may simply be uninterested in the content of Welsh media and therefore report very little regular exposure to these materials. Not only do language attitudes play a part in this variable but also attitudes about these particular forms of media. Several informants simply dismissed the content of Welsh language programming as uninteresting or claimed they just didn't have time to read Welsh newspapers in

addition to their primary, English-language news source. The nature of this study simply does not present the right kind of results to effectively analyze the importance of Welsh media to heritage Welsh fluency, and I imagine designing a sufficiently narrow project would be rather difficult.

Formal Welsh language education was predicted to have a positive effect on fluency outcomes. Recall the study of L1 Korean spoken by immigrants to the US which was discussed in Chapters 2 and 3 (Komshian and Liu 1999). Performance on a Korean grammaticality judgment task improved as the age of arrival in the US increased, but this was not taken as an indicator of the importance of the critical period. The investigators controlled for factors which were associated with age—the amount of regular use of Korean (our variable of conversational practice) as well as the amount of Korean-language schooling undergone before emigrating. Controlling for these factors eliminated the negative correlation that was initially observed between age of L2 acquisition and L1 (or heritage language) attrition. The connection between formal education and more successful (and maintained) acquisition of the L1 was implicit, and the same connection is here assumed for heritage Welsh.

The amount of Welsh in school is represented in these data by six possible levels: (0) represents no Welsh schooling whatsoever; (1) indicates that the informant studied Welsh as a subject for one to three years but (2) if for four or more years (including preparation for an O-level or GCSE exam); (3) indicates that the informant was enrolled in Welsh-medium primary education but did not pursue Welsh as an academic subject after that; (4) represents Welsh-medium primary education as well as Welsh as a subject at the secondary level; (5) indicates that Welsh was the principal language of education both at the primary and secondary level. These distinctions should be sufficiently fine-grained to observe any effects that formal Welsh language education may have had on the resulting grammar of the heritage Welsh speakers.

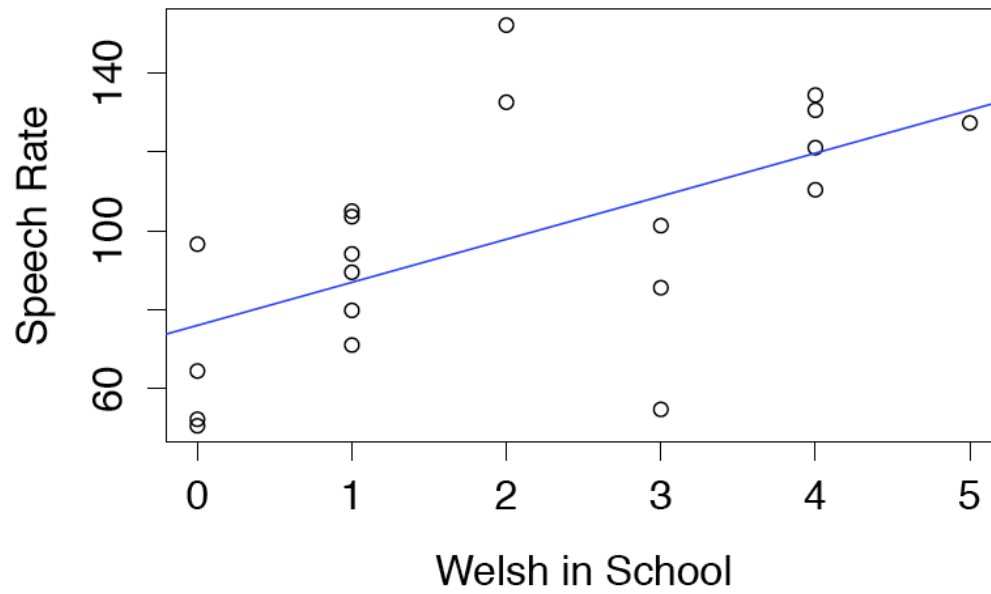


Figure 5.24 Heritage speaker (HS) Speech Rate plotted against the amount of Welsh language education received in school

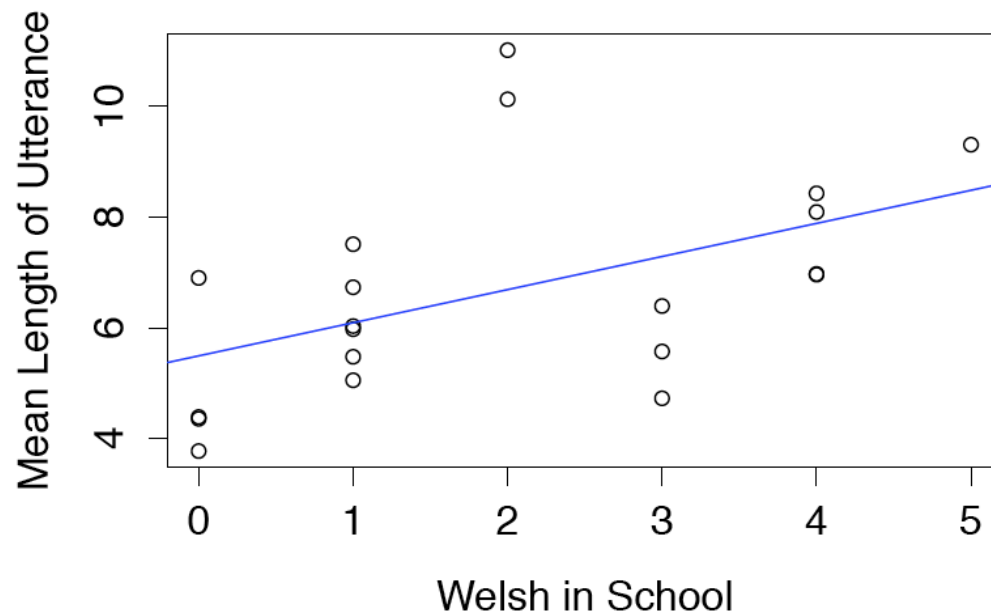


Figure 5.25 Heritage speaker (HS) Mean Length of Utterance (averaged) plotted against the amount of Welsh language education received in school

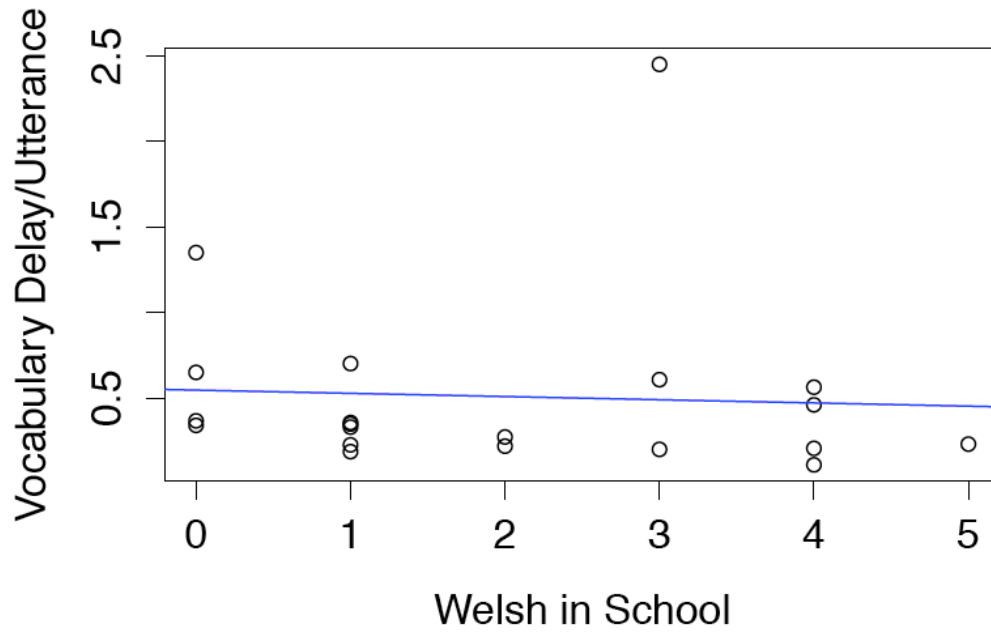


Figure 5.26 Instances of Vocabulary Delay per Utterance (averaged) in the heritage speaker (HS) narratives plotted against the amount of Welsh language education received in school

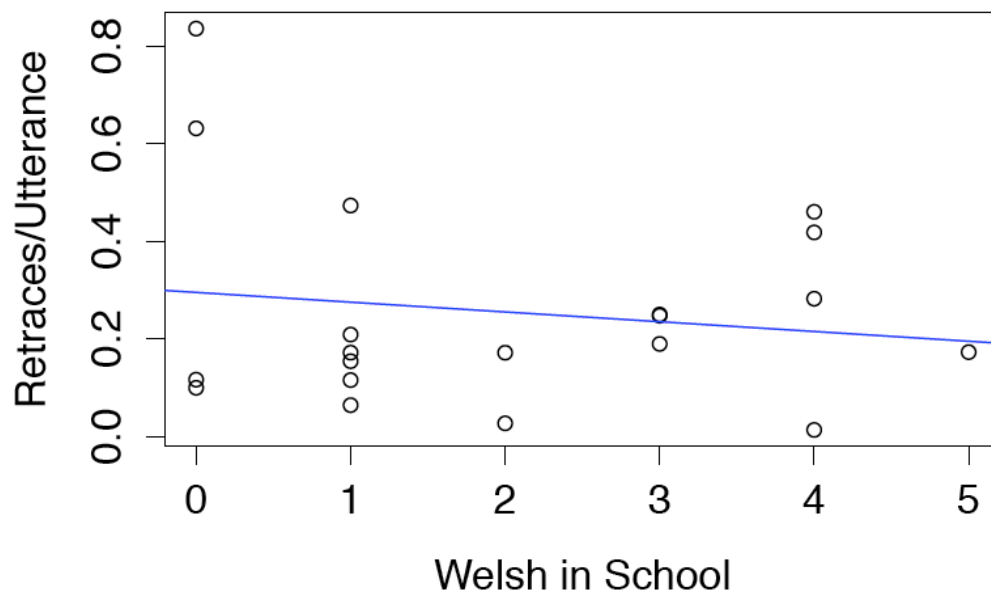


Figure 5.27 Retracers per Utterance (averaged) in the heritage speaker (HS) narratives plotted against the amount of Welsh language education received in school

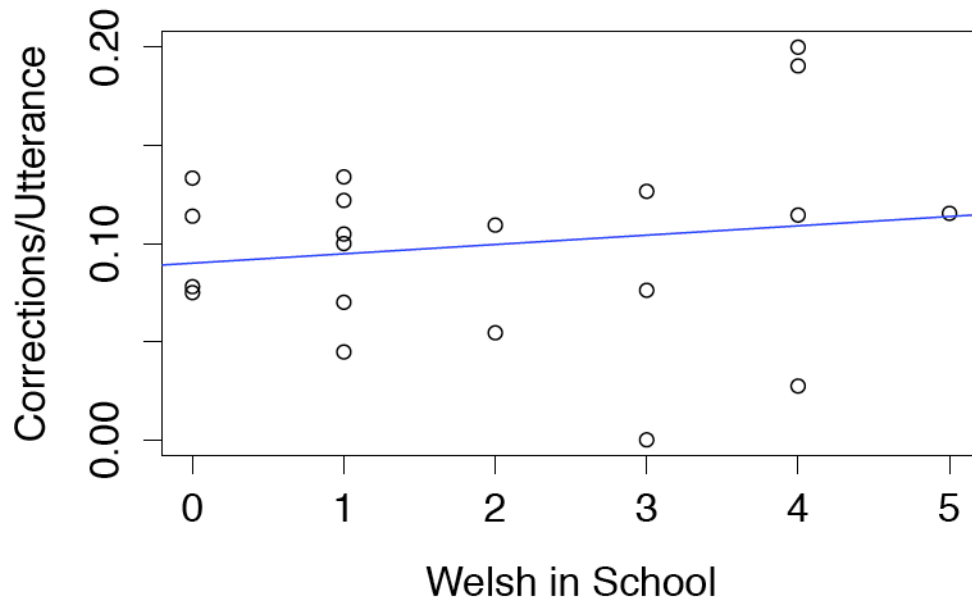


Figure 5.28 Retraces with Correction per Utterance (averaged) in the heritage speaker (HS) narratives plotted against the amount of Welsh language education received in school

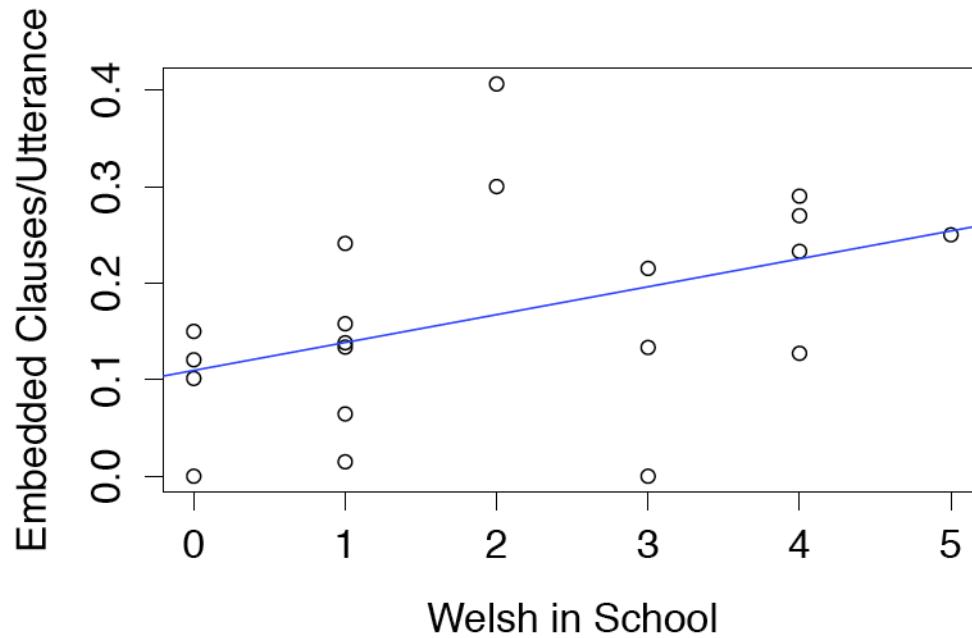


Figure 5.29 Embedded Clauses per Utterance (averaged) in the heritage speaker (HS) narratives plotted against the amount of Welsh language education received in school

Formal Welsh language education was only a significant predictor of the two fluency measures Speech Rate (p -value = 0.005602) and Mean Length of Utterance (p -value = 0.0262). On those measures, the more the informant studied and used Welsh in school the better their fluency remained. This is an intuitive result which makes all the more curious the lack of significant correlation between Welsh schooling and our other fluency measures. Again the vocabulary called for in this narrative task may simply not be the sort of vocabulary used in the classroom setting. On the other hand, as it is a children's book, it could be said that because Welsh schooling at the primary level presumably *did* expose the informants to this kind of language, both the vocabulary and the narrative form itself, it is the infrequency of access to that information (according to the Activation Threshold Hypothesis (Paradis 2004; Paradis 2007)) that limits the vocabulary recall of the heritage speakers. The same can be said for the Controls, who also occasionally struggled with vocabulary recall (see figures 5.5 and 5.6).

The frequencies of Retraces and Retraces with Correction are unaffected by the amount of Welsh the informants were exposed to in school. This is an unexpected result—more Welsh education should lead to fewer instances of these grammatical “do-overs.” It could be, however, that greater formal language education resulted in an increased metalinguistic monitor, one which would be as likely to catch mistakes as be careful about not making them in the first place. In a sense, this levels the differences between these five groups and supports my earlier claim that Retraces and Corrections, while essential components of our fluency model, are not as easily measured against variables which may affect that fluency as the other four measures have proven to be—they can not be similarly correlated on a simple positive or negative slope.

The biggest mystery, however, is the lack of a correlation between Welsh in School and Frequency of Embeddings. The greater amount of linguistic exposure, especially in the education setting, would presumably have led to more frequent and confident use of grammatically complex utterances. More so than our other measures, this would have been directly addressed by Welsh

language instruction with the onset of literacy and the deliberate introduction of embedded structure. In fact, a correlation between Welsh in School and Embedded Clauses per Utterance seems apparent from figure 5.29 but the significance of this correlation is just below our threshold with a p -value of 0.05527 (i.e. there is a 5.527% chance that these data could be observed *without* a true correlational effect). This problem could easily be due to the flaws of the six-level grouping system or to the low number of participants ($N=20$), but notice that the highest performers on this measure were the two informants of group (2). Studying Welsh as a subject for more than four years but never enrolling in a Welsh-medium school emerges as the advantage from these data. Recall from figure 5.11 that the average for the Controls on this fluency metric was 0.34 Embedded Clauses per Utterance. These two HSs performed as well or better than the average and the median (50th percentile) of those fully proficient baseline informants. This is certainly very interesting, but again, due to the limits of the informant pool size, I hesitate to overstate the significance of this observation. I would not want to undervalue the importance of Welsh medium education, especially as it is very likely to have been a significant component of the linguistic exposure that resulted in the high proficiency of the Controls as well.

Each of these four variables is problematic in some ways, but they share the single concerning fact of being self-reported. The informants were asked during the interview process about their regular use of the Welsh language and it is on that volunteered information that these correlational observations rely. The difficulty with this is most apparent when analyzing the effect of Age at Language Shift on the fluency measures. Figures 5.30 through 5.35 below present the effect of Age at Language Shift on the fluency measures, in which Age at Language Shift is given in years and those HSs who report themselves to have been balanced in both languages or English dominant from infancy are coded as ‘0.’



Figure 5.30 Speech Rate of the heritage speakers' narratives plotted against their Age at Language Shift



Figure 5.31 Mean Length of Utterance in the heritage speaker (HS) narratives plotted against their Age at Language Shift

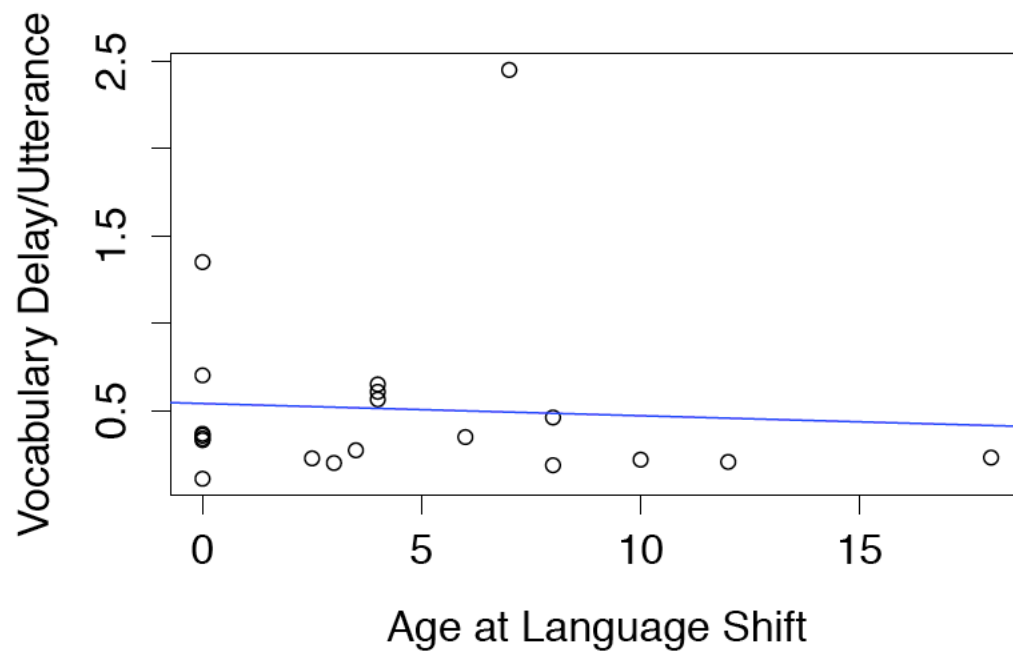


Figure 5.32 Instances of Vocabulary Delay per Utterance (averaged) in the heritage speaker (HS) narratives plotted against their Age at Language Shift

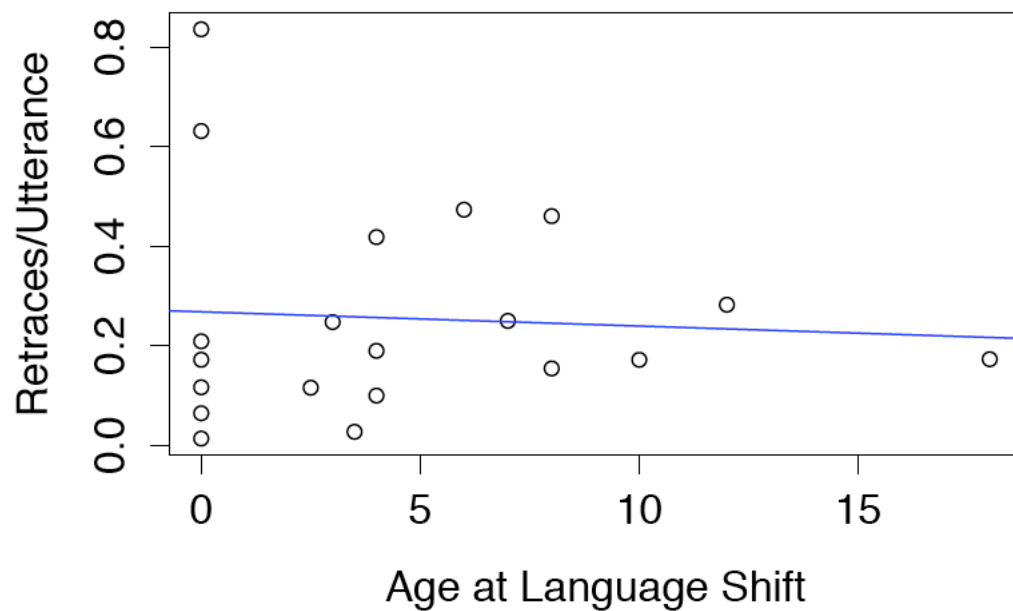


Figure 5.33 Instances of Retracing per Utterance (averaged) in the heritage speaker (HS) narratives plotted against their Age at Language Shift



Figure 5.34 Instances of Retracing with Correction per Utterance (averaged) in the heritage speaker (HS) narratives plotted against their Age at Language Shift



Figure 5.35 Embedded Clauses per Utterance (averaged) in the heritage speaker (HS) narratives plotted against their Age at Language Shift

Again, the three fluency metrics of Speech Rate, MLU, and Frequency of Embedded Clauses are the only measures which correlate significantly with the informants' Age at Language Shift (p -values of 0.02959, 0.004421, and 0.02767 respectively). Incidentally, these are the same three fluency metrics which are significantly correlated with Conversational Use per Week. The age at which the HS switched from being Welsh dominant to English dominant should be of paramount importance to ultimate language proficiency under the Critical Period Hypothesis (CPH), but, given the lengthy discussion of that theory in Chapter 2, we should be careful to analyze these data with a critical eye.

Instances of Vocabulary Delay, Retraces, and Retraces with Correction have been established as valid measures of fluency but they are not significantly effected by this Age at Language Shift variable. This is problematic for the CPH. Retraces and Corrections have already been sufficiently discussed as problematic to set them aside here, but a lack of correlation with Vocabulary Delay is unexpected. According to the criticisms of the CPH which were laid out in Chapter 2, the connection between the child mind and an innate talent for language acquisition has not been established convincingly enough to discount the possibility of successful language acquisition later in life. It is certainly not strong enough to extend the importance of this “critical period” into the domain of attrition as well (contra Montrul 2008). But the circumstances that surround an earlier or later Age at Language Shift, especially given the status of Welsh as a minority language, introduce an interesting set of confounds into the question of its significance.

A more direct study of the effect of this variable could be attempted in situations of a more absolute termination of language exposure, but this is not the case for these HSs of Welsh. The Age at Language Shift variable is problematic because it does not account for the amount of exposure that follows that shift in dominance. This is a fundamental issue in heritage language research (see Chapter 1) and is the reason Conversational Use and Media Exposure have also been included here as important potential factors affecting fluency. The quantity and quality of

continued exposure to Welsh after the dominance shift is fundamental to proficiency outcomes, including fluency measures, but is altogether ignored by the Age at Language Shift variable. There are, in fact, seven heritage speaker informants in this study who reported being bilingual from birth and always English dominant. This obscures entirely any variance in amount of exposure between them. A dominant language may be dominant without the weaker language completely disappearing. The imbalance in the bilingual language system may be slight, even if the shift happened when the heritage speaker was very young or if the speaker was raised bilingually from birth. The Age at Language Shift is not relevant so much as an age at which acquisition ended, as it is a rough indication of the *amount* of Welsh language input the HS received in childhood. Generally speaking, the later the Age at Language Shift, the more Welsh was presumably spoken at home. The earlier the Age at Language Shift the less the HS's immediate family used Welsh in the home. Imagined this way, the *amount* of early exposure correlating with MLU, Speech Rate, and Frequency of Embedded Clauses follows easily from the foundational premise of heritage language research that the quantity and quality of language input determines ultimate acquisition success (as discussed in Chapters 1,3, and 4).

There are concomitant factors which can easily be confused with the Age at Language Shift variable as well. In addition to the effect of language input quantity being reduced after shift, language attitudes may be affected. The heritage speaker may be more positively inclined toward Welsh, and therefore prioritize the maintenance of that language, if she underwent language shift at an older age. Conversely, language shift at an early age may have been caused by a traumatic event, a move or social altercation, and result in a conscious rejection of the heritage language in favor of the dominant language. Naturally, this would result in a greatly reduced desire to maintain that language in adulthood as well. Several of the HS informants recounted such stories to me during the interview process, though they usually accompanied them with a note of regret that they had given up on Welsh when they had the chance to acquire it

completely. These two scenarios are very clearly connected to Age at Language Shift, but the resulting fluency outcome is not directly caused by the shift itself. The malleability of the child mind is not the only influence at play when considering the importance of the age at which language dominance shifted.

What my analysis finds, then, is that HSs of Welsh overlap with baseline Controls on several measures of fluency. While overall proficiency is undeniably distinct between these two groups, some heritage Welsh speakers speak as quickly as baseline speakers, they produce utterances of similar lengths, and they may even use embedded clauses at baseline rates. What all the HS informants struggle with, however, is vocabulary recall and speaking without retracing themselves, either with or without the need to also correct themselves. The impression of fluency may be convincing because of the particular talents of the HS, but she certainly does not present a flawless fluency in any case. The variables which affect that fluency outcome are the measures of conversational practice per week, the age at which her dominance shifted, and, to a lesser extent, the amount of Welsh instruction she received in school.

Notably, the amount of regular exposure to Welsh language media does not correlate with any improved fluency outcomes in this HS sample set, nor is the entire set of measures which make up the fluency complex always affected even by those variables which I found to be significant. Of the six components I combined as a proxy for the concept of fluency—Mean Length of Utterance, Speech rate, Frequency of Embeddings, Vocabulary Recall Delay, Retraces, and Retraces with Corrections—only MLU and Speech Rate were affected by Conversational Use, Welsh schooling, and Age at Language Shift, though the Frequency of Embeddings was also affected by Conversational Use and Age at Language Shift as well. Table 5.1 briefly summarizes these correlational findings.

Table 5.1 Significant effects of variables on fluency measures

Fluency Complex →	MLU	Speech Rate	Frequency of Embeddings	Vocabulary Recall Delay	Retraces	Retraces with Correction
Conversational Use per Week	✓	✓	✓			
Regular Exposure to Welsh Media						
Welsh in School	✓	✓				
Age at Language Shift	✓	✓	✓			

Given the results of my analysis, in which I've found correlations between factors in the personal language history of individual speakers and their performance on certain of these fluency measures, the importance of these factors can be promoted in the language maintenance agenda. The system of Welsh medium schooling and the mandatory Welsh language requirement for students in traditional schools are particularly vulnerable to manipulation in the political arena, so a quantification of the value of Welsh schooling to ultimate fluency may have implications beyond this project. The positive effect of Conversational Use per Week, especially because it appears after only a few hours, is also a welcome result, and one which may be used in support of efforts to create or maintain Welsh language clubs and societies for speakers to practice outside of the Welsh dominant areas of Wales.

This chapter will be a basis for further research into heritage Welsh speakers as a unique group among adult Welsh-English bilinguals. This discussion begs the question of the difference between these HSs and adult L2 Welsh speakers. That comparison is beyond the scope of this project but this dissertation is certainly not the end of heritage Welsh studies. A solid prediction, based on the large body of heritage language research, is that these HSs, regardless of their

grammatical accuracy or literacy competence, should be more fluent than the adult learners. Fundamental to our definition of fluency is that it is based on the impression of the listener, and this is exactly the misperception suffered by HSs in the classroom setting. Speakers of a heritage language are often perceived to be more proficient than they truly are precisely because they speak more fluently than would a learner with otherwise similar grammatical abilities. An understanding of the true determiners of fluency, both its synchronic measurement and the factors which affect its development over time, is immediately relevant in the language classroom.

My intention in describing the fluency of the heritage speakers in comparison to the Controls is not simply to point out the obvious—HSs are less fluent than Welsh dominant speakers and more exposure leads to better fluency outcomes—but a proper understanding of the term is essential. All heritage Welsh speakers do not perform equally well or equally poorly on these measures of fluency. Rather, their abilities vary along a continuum of proficiencies which not only allows for variance among the HSs, but also overlaps with the range of abilities in baseline Welsh as well. HSs who give the impression of high proficiency do so by means of their performance on several of the fluency measures—a performance which may, in fact, equal that of some baseline speakers. That impression of fluency, now quantified and evaluated, can be set aside as only a single component of overall proficiency, and understood to be insufficient on its own to determine the speaker's overall proficiency level.

The question of heritage Welsh fluency will return in the Conclusions of this dissertation, as it clearly relates to language policy and an understanding of census results, both of which will be considered in great detail. After this thorough analysis of the topic, and of where our heritage speakers fall on the fluency spectrum, we will be better able to recognize the huge interpretive variability presented by such a seemingly simple question as “Do you speak Welsh?” Given a new appreciation for the term fluency in its narrow sense, and the measurement of differences among the informants according to these six measures, not only should our understanding of

heritage Welsh be improved, but also its potential to overlap on a spectrum of Welsh proficiency with the Welsh that is spoken fully proficient speakers. The end goal for Welsh language policies should be well enough defined that fluency is not mistaken for successful and complete acquisition. Language proficiency is more than this single component, despite the fact that it might be the most conspicuous facet of the spoken language.

Chapter 6. Initial Consonant Mutation (ICM) in Heritage Welsh

Like the other languages of the Celtic family, Welsh employs a system of Initial Consonant Mutation (ICM) as part of its morphological inventory. These mutations are phonetic changes to the first segment of a word, as shown in table 6.1, which can be triggered by a preceding lexical item or by grammatical relation. This is one of the most thoroughly studied components of the language, though linguists still debate some aspects of our understanding of its functionality. As a distinctive phenomenon, ICM maintenance in heritage Welsh is potentially an informative test of the resilience of a particular grammatical system in heritage language which is entirely foreign to the dominant language. The heritage Welsh grammars, given the conditions of reduced language exposure which result in heritage rather than baseline proficiency, may also shed some light on the relative salience of these morphological alterations to the language acquirer, and thus also to typical users of the Welsh language.

Table 6.1 The Initial Consonant Mutation (ICM) system

radical form of the consonant		form after Aspirate		form after Nasal		form after Soft	
		Mutation (AM)		Mutation (NM)		Mutation/Lenition	
		<i>Treigladd Llaes</i>		<i>Treigladd Trwynol</i>		<i>Treigladd Meddal</i>	
/p/	‘p’	/f/	‘ph’	/m̥h/	‘mh’	/b/	‘b’
/t/	‘t’	/θ/	‘th’	/n̥h/	‘nh’	/d/	‘d’
/k/	‘c’	/χ/	‘ch’	/ŋh/	‘ngh’	/g/	‘g’
/b/	‘b’			/m/	‘m’	/v/	‘f’
/d/	‘d’			/n/	‘n’	/ð/	‘dd’
/g/	‘g’			/ŋ/	‘ng’	∅	
/m/	‘m’					/v/	‘f’
/l/	‘ll’					/l/	‘l’
/r/	‘rh’					/r/	‘r’

From Table 6.1, we see that the Aspirate Mutation (AM) transforms its affected consonants from [-cont] to [+cont], i.e., turns a plosive into a fricative by slightly opening the point of closure during articulation. The Nasal Mutation (NM) also changes its affected consonants from [-cont] to [+cont] as well as nasalizes those consonants. The Soft Mutation (SM) changes [-voice] to [+voice] where applicable, [-cont] to [+cont] if already voiced, and deletes /g/ altogether.¹ The consonantal changes caused by an instance of mutation are to the manner of articulation only—they do not affect the place of articulation. The three types of ICM—Nasal Mutation (NM), Aspirate Mutation (AM), and Lenition or Soft Mutation (SM)—will each be addressed in turn, and any divergence between the heritage speakers and the baseline in distribution or motivation will be analyzed in the following sections.

When I began building the corpus of Welsh narrative samples, I predicted that the ICM system in heritage Welsh would be dramatically simplified in comparison to the language of the baseline informants. Based on the relative frequencies of these mutations in the baseline, I expected that AM and NM would prove to be less robust than SM in general, and that the distribution of SM would also be significantly reduced from the baseline grammar, though to a lesser extent than the other two mutations. These hypotheses do not follow from the discussion of Chapter 3, however, in which it was shown that the more opaque a grammatical structure, the more input is required in order for it to be fully acquired. The *frequency* of that structure is not necessarily the determining factor of its being acquired or not. Consequently, my predictions were not entirely borne out, and my assumption that the ICM system is not completely acquired by heritage Welsh speakers proved to be too simple to describe the data. The heritage system of ICM is not uniformly divergent from the baseline overall—indeed, some of the mutation contexts

¹ The phenomenon of *h*-insertion, clearly related to ICM, is excluded from this analysis because of its rarity and because it is not, strictly speaking, a *consonantal* mutation. The addition of the aspirate *h*- before a word-initial vowel (expected after the lexical triggers *eu* ‘their’ and *ein* ‘our’) was only observed once in the narrative samples collected for this project.

manifest as native-like in heritage Welsh—and there are signs that the various conditions which trigger even the same kind of mutation are not equivalently transparent to the acquirer. It is not the system as a whole which is either successfully acquired or not, nor even acquired as one kind of mutation at a time, but rather it seems that each triggering context of mutation is acquired individually. Notable characteristics of heritage Welsh ICM which support this generalization are discussed in the following sections.

6.1 aspirate mutation

The Aspirate Mutation (AM) is very infrequent in baseline Welsh, but it does appear in the heritage Welsh samples in a one particular context, suggesting it may have more stability in Welsh than its infrequent application may suggest. Conceding that the narrative samples of this project are, in general, not particularly long or lexically varied, they nevertheless exhibit a striking dearth of AM overall. When considering lexical AM triggers,² only two of the baseline speakers used AM at all (three times total), though it was expected in nine of the speakers' samples (in eighteen total instances).³ The heritage speakers, interestingly, were similarly distributed—one speaker (in one instance) used AM, which was triggered in ten samples (in

² The sole (arguably) syntactic context of the AM is the so-called mixed mutation on the synthetic verb of a negative sentence, which takes AM on those three consonants which are affected by AM, and SM otherwise. For most speakers, this mutation has simplified to SM on all mutable consonants. It is not considered here because of its known irregularity in the baseline, and the fact that it did not appear in any of the samples. (cf. King 2003, 185; Thomas 1996, 694-5)

³ The reader may notice that I am avoiding using terms like “correct” and “incorrect” when describing the informants' use of the ICM system. The grammatical accuracy prescribed by traditional grammar books may be a useful reference but, as a descriptive study, this project is more interested in the naturally produced speech of the baseline informants as the comparandum to the heritage speakers. My use of “correctly applied” or “missed mutation” could be mistaken as a judgment about the quality of the language in both the heritage and baseline samples, something which has no place here.

twelve instances). Not only did the heritage speakers neglect to employ AM in the majority of triggering contexts, the heritage speakers used the SM instead of the AM in six instances where AM was expected. Tellingly, the baseline speakers used SM instead of AM in nine such instances as well. On the other hand, AM is almost never employed in contexts where one of the other mutations is expected—only one speaker, a heritage speaker, did this (in two instances where SM was expected).

Table 6.2 Use of the Aspirate Mutation (AM) in the narrative samples

	AM used where expected	no mutation where AM expected	AM where no mutation expected	AM where SM was expected	SM where AM was expected
heritage speakers: total instances	1	12	1	2	6
baseline speakers: total instances	3	18	0	0	8

It would seem that the contexts for AM are being absorbed by the SM as the ICM system simplifies—both in the baseline and heritage grammars—but the similarity of AM distribution in both sample populations runs counter to my prediction above about AM disappearing in the heritage grammars. The retention of AM by the heritage speakers may be most remarkable in that it does *not* show greater simplification than what is seen in the baseline grammars. Certainly, AM is weakly represented in heritage Welsh, but not because of the nature of heritage language acquisition in particular. Baseline Welsh is simplifying the ICM system already, and the strongest remaining lexical trigger for AM is being maintained in the heritage language nearly as well as in the baseline—*ei* ‘her’ retains the AM as part of its lexical entry because it is necessary in order to

distinguish it from the otherwise homophonous *ei* ‘his’, which triggers SM . Table 6.3 below presents all the potential lexical triggers of AM.

Table 6.3 Aspirate Mutation (AM) lexical triggers

found triggering AM in baseline samples	<i>ei</i> ^{AM} ‘her’
not found triggering AM in baseline samples	<i>a</i> ^{AM} ‘and’ <i>â</i> ^{AM} ‘with’ <i>chwe</i> ^{AM} ‘six’ <i>gyda</i> ^{AM} ‘with’ <i>tri</i> ^{AM} ‘three’ <i>tua</i> ^{AM} ‘around’

(list of potential triggers modified from King (2003, 17), a grammar of modern colloquial Welsh)

Although there are seven potential lexical triggers of AM, only three appear in the narrative samples of the baseline informants— *ei* ‘her’, *a* ‘and’, and *gyda* ‘with’. Judgments about the strength of the other four as AM triggers in the standard or heritage language must be withheld. Of those three lexical triggers which were actually used, only *one* ever affected AM on the following consonant—*ei* ‘her’. This is not unexpected. The other six are known to be inconsistent as AM triggers in the baseline. (King 2003, 17) As I mentioned above, the motivation for maintaining this single AM context by the baseline speakers, the trigger *ei* ‘her,’ is most likely that there is a need to distinguish it from *ei* ‘his’ (which triggers SM). Given this assumption, it should be no surprise, then, that in the single instance when a heritage speaker used *ei* ‘her’ she also aspirated the following mutable consonant. The logical necessity for this mutation context is in fact so transparent, that even heritage speakers, with their reduced and irregular exposure to Welsh, may acquire and maintain the AM for the sole purpose of employing it in these instances. Further study of the AM in heritage Welsh is warranted given this result. The

fact that there is only a single data point suggesting successful acquisition of AM under reduced exposure is not enough evidence to claim that the AM system is completely acquired by the heritage speakers, but it is certainly enough to motivate a future study which directly elicits this mutation in a more controlled fashion.

6.2 nasal mutation

The Nasal Mutation (NM) affects six consonants—/p, t, k, b, d, g/—but is only applied after two lexical triggers. Given the reduction of the baseline AM system, as discussed above, a reasonable prediction may be that the baseline informants will exhibit a similar reduction of the NM system. However, both of the lexical triggers of NM maintain their nasalizing effect in the baseline samples.

Table 6.4 lexical triggers of Nasal Mutation (NM)

found triggering NM in baseline samples	fy^{NM} ‘my’ (often elided to ym , yn , or y in speech) yn^{NM} ‘in’
---	---

(list modified from King (2003, 17))

Five of the baseline informants nasalized a consonant following either trigger (in seventeen instances). Three other baseline informants failed to mutate after yn ‘in,’ but no baseline speaker failed to mutate after fy ‘my.’ Table 6.5 presents these data.

Table 6.5 Nasal Mutation (NM) in the narrative samples

<i>baseline</i>	yn^{NM}	fy^{NM}	<i>Heritage Speakers</i>	yn^{NM}	fy^{NM}
realized NM	12	5	realized NM	7	0
omitted NM	3	0	omitted NM	6	0
SM instead of NM	11	0	SM instead of NM	5	0

The fact that the singular possessive adjectives— fy^{NM} ‘my,’ dy^{SM} ‘your,’ ei^{SM} ‘his,’ and ei^{AM} ‘her’—each trigger one of the three types of mutation is almost certainly due to their reduced pronunciation as clitics. The most salient aspect of the phonological forms of these lexical items in rapid speech is often the following mutation. Strictly speaking, the possessive adjective clitics are circumfixes, in which a redundant personal pronoun may also follow the noun. The need for this redundant pronoun follows from the same reason—the possessive clitic is difficult to discern in natural speech. In instances where a mutable consonant follows the possessive adjective, the listener is able to catch the intended meaning from the mutation as much as from the clitic itself, and the following pronoun is redundant. Not all consonants are mutable, however, and vowels never are. In those cases the personal pronoun following the noun is necessary to avoid ambiguity. The examples below show how this system works, efficiently transmitting the salient lexical information with a minimum of redundant information. The role that ICM plays in the possessive adjective system is likely why these mutations are maintained in the baseline.

- (1) cath
cat
- (2) yng ng hath (i)
my NM cat
- (3) dy g ath (di)
your SM cat

- (4) *ei* *gath* (*e*)
 his SMcat
- (5) *ei* *chath* (*hi*)
 her ^{AM}cat

The second context for NM is similarly motivated. There are four *yn* homophones in Welsh—the adverbial particle, the predicative particle, the progressive aspect particle, and the preposition ‘in’—and as with the possessive adjective system, these *yn* homophones are primarily distinguished phonetically by the mutations they do or do not trigger. SM is triggered by the adverbial particle and the predicative particle, no mutation follows the progressive particle, and, *yn* ‘in’ triggers NM. Position within the sentence and discourse context distinguish the adverbial particle from the predicative particle (though both are followed by adjectives), thus reducing the potential for ambiguity. The predicative particle and the progressive aspect particle have overlapping contexts—both follow the subject in an analytic/periphrastic construction and are frequently elided to ‘*n*—but the SM triggered by the predicative particle conveys to the listener that it is a noun or adjective which follows, rather than a verb-noun.⁴ Note the difference in examples (6) and (7) below. Obviously, the predicate itself will eliminate this ambiguity as well, but the listener does not need to wait for the entire phrase to be uttered when a mutation (or lack of mutation) on its initial consonant enables some amount of planning on the listener’s part earlier in the utterance. The predicative particle *yn* and *yn* ‘in’ are potentially ambiguous, on the other hand, because they may occur in the same position within the sentence, as examples (7) and (8) illustrate. The NM triggered by the preposition *yn* ‘in’ in these instances eliminates that ambiguity when the following consonant is mutable.

⁴ A definition of the Welsh verb-noun deserves a dissertation in itself, but for our purposes it is sufficient to say that its roles are analogous to verbally derived forms in English such as the infinitive, the participle, and the gerund.

- (6) Mae e 'n cerdded yn gyflym
 is.3sg he PROG walk ADV SMquick (radical form: cyflym)
 He is walking quickly.
- (7) Mae e yn dwll
 is.3sg he/it PRED SMhole (radical form: twll)
 It's a hole.
- (8) Mae e yn nhwll
 is.3sg he/it in ^{NM}hole (radical form: twll)
 It's in a hole.

Knowing that AM is possibly maintained by the heritage speakers in a single context in which it is truly necessary for disambiguation, following *ei* 'her,' the heritage speakers are expected to also maintain NM in disambiguating contexts. NM following *fy* 'my' and *yn* 'in' is, in both cases (to some degree), necessary for phonological distinction from other, homophonous clitics. Unfortunately, the heritage speakers did not use the possessive adjective *fy* 'my' at all, and so I am unable to test my hypothesis that its NM would be maintained. The baseline speakers used *fy* 'my' only when they spoke in the first person of the characters, adding some flair to their narratives with dialogue and funny voices. It should be no surprise, then, that the less confident heritage speakers failed to employ this particular narrative device in constructing their own stories.

There are more data points of *yn* 'in' in the heritage speaker narratives, but the maintenance of NM is less clearly defined than was the maintenance of AM discussed above. Whereas the baseline speakers employed the NM in 12 out of 15 triggered instances, the heritage speakers actually mutated in only 7 of 13 triggered instances (as we can see in table 6.5 above). Generally speaking, individual speakers were consistent in either using NM or failing to, but one heritage speaker mutated after *yn* 'in' in one instance, and did not mutate in another. Either the need for disambiguation alone is not motivation enough to maintain NM after the trigger *yn* 'in,' or this context for NM has not been completely acquired by all of our heritage Welsh speakers.

The heritage speakers who did mutate after *yn* ‘in’ averaged higher than the total heritage speaker average on measures of weekly Media Exposure, Age at Language Shift, and Welsh in School, but lower than average Conversational Use per week. On the other hand, those heritage speakers who used the radical forms of mutable consonants instead of mutating after *yn* ‘in’ had lower than average measures of weekly Media Exposure, Conversational Use, and Age at Language Shift, but higher than the total heritage speaker average on the measure of Welsh in School. I do not want to over-emphasize the possible effects of these individual measures, but the general trend—that greater input seems to have led to better outcomes of NM maintenance—must be taken as a sign of the importance of the quantity of input in the acquisition process.⁵ The informants are better sifted for personal language history by NM than by AM, which was maintained in too few instances to see any trends in the speakers’ Welsh experience by these measures.

The potential for ambiguity is not as great in contexts which call for NM as in the *ei* ‘her’ versus *ei* ‘his’ context. The different *yn*’s are capable of being distinguished by other means. Placement in the sentence (or its immediate linguistic context) helps to differentiate, as does the class of word which follows (noun, adjective, or verb-noun), making NM redundant in most instances. If the heritage speaker is not dependent on the mutation as a functional element in conveying her intended meaning or understanding her interlocutor, the maintenance of that mutation is less critical in the grammar. The baseline speakers also occasionally omit the NM after *yn* ‘in,’ and presumably for the same reason. We will revisit the *yn* homophones in the next section of this chapter when we look at the Soft Mutation (SM) and its triggers, but at this point we are still uncertain of the extent to which their mutation effects are acquired by our heritage speakers.

⁵ See Chapter 5 for a description of these input variables and their potential effect on language outcomes.

Before leaving the NM and AM, it is also important to note those instances in which the SM was employed in their place. Tables 6.2 and 6.5 both give the figures for the occurrences of SM appearing when one of the other mutations was expected—an AM triggering context actually appeared with SM in 8 instances in the baseline and 6 in heritage Welsh, and a NM triggering context appeared with SM in 11 instances in the baseline and 5 in heritage Welsh. The particular details of each of these occurrences are not necessary here, but the trend toward dominance of SM in the ICM system is clear. Recall that the AM only actually occurred in the baseline samples in 3 instances and in the heritage Welsh samples in 4 instances. Not only did the SM replace the AM in many triggered contexts, it actually replaced the AM in more instances than the AM appeared itself. The same pattern is seen in the replacement of NM by SM—NM itself only appeared 12 times in the baseline and 7 in the heritage samples, but manifested as SM in 11 and 5 instances, respectively. When mutation carries a true functional load, the heritage speakers are more likely to exhibit it, but the mutation of first resort is clearly SM. Only when disambiguation is necessary are the other two types of mutation maintained.

6.3 soft mutation

The Soft Mutation (SM), or Lenition, is the best represented of the three types of ICM in Welsh. Not only does it affect the greatest number of consonants (9, see table 6.1), but also, in addition to following lexical triggers, SM is used to indicate gender or grammatical function in certain contexts. Table 6.6 below presents all of the potential triggers of SM, both lexical and syntactic.

Table 6.6 The Contexts of Soft Mutation (SM)⁶

lexical triggers of SM: content words	<p><i>pan</i> ‘when’ <i>pa</i> ‘which’ <i>neu</i> ‘or’</p> <p><i>dau</i> ‘two’ (m) <i>dwy</i> ‘two’ (f)</p> <p><i>pur</i> ‘very’ <i>mor</i> ‘so’ <i>go</i> ‘fairly’ <i>rhy</i> ‘too’</p> <p><i>ei</i> ‘his’ <i>dy</i> ‘your’</p> <p><i>dyma</i> ‘Here is ...’ <i>dyna</i> ‘There is ...’ <i>dacw</i> ‘There is ...’</p> <p><i>am</i> ‘about’ <i>ar</i> ‘on’ <i>at</i> ‘at’ <i>dan</i> ‘under’ <i>dros</i> ‘over’ <i>gan</i> ‘by, with’ <i>heb</i> ‘without’ <i>hyd</i> ‘up to’ <i>i</i> ‘to’ <i>o</i> ‘from’ <i>tan</i> ‘until’ <i>trwy</i> ‘through’ <i>wrth</i> ‘at’</p> <p><i>hen</i> ‘old’ <i>ambell</i> ‘occasional’ <i>pob</i> ‘each, every’ <i>prif</i> ‘main, chief’ <i>holl</i> ‘all’ <i>unig</i> ‘only’ (These adjectives are exceptional in that they precede the noun.)</p>
lexical triggers of SM: function words	<p><i>fe</i> pre-verbal particle (Southern) <i>mi</i> pre-verbal particle (Northern) <i>yn</i> predicative particle, before a noun or adjective complement <i>a</i> relative particle (Subjects and Direct Objects only) <i>yn</i> adverbial particle (<i>yn</i> + adjective = adverb)</p>
lexical triggers of SM: indicating feminine gender	<p>SM on a feminine noun following <i>un</i> ‘one’ SM on a feminine noun following <i>y/yr</i> ‘the’ SM on an adjective following a feminine noun</p>
SM as an indicator of syntactic salience	<p>SM on a phrase of address SM on a noun in apposition SM on adverbial phrases of time or manner (without <i>yn</i>) SM on post-posed Subject (intervening prepositional phrases, adverbial phrases, etc.) SM on the direct object of a synthetic verb</p>

⁶ This list does not include word-internal SM contexts. SM is triggered on the second element of a compound and on a mutable consonant following a prefix, but, as these mutations are entirely lexicalized, they have not been analyzed here. The content of this table is taken from King (2003) and Thomas (1996).

SM appears in far more contexts and has a much broader distribution in the Welsh language than either the Nasal or Aspirate Mutation. Both the baseline and heritage speaker informants liberally applied SM, even in contexts where it had not been triggered, as I discussed above. Idiosyncratically, baseline speakers will lenite the initial consonant of an inflected verb, a remnant of the preverbal particle and as such not a context that is either, strictly speaking, lexically or syntactically triggered.⁷ Example (9) below, which is taken from one of the baseline narrative samples, exhibits this idiosyncratic synthetic verb initial SM.

- (9) Gwymp-odd ar ei ben allan o 'r ffenest (radical form: cwympo)
 \fall-3sg.PST on his \head out of the window
 He fell on his head out of the window.

The mutated form also seems to be the baseline default form for a number of lexical items, including *weld* instead of *gweld* ‘see’ and *neud* for *gwneud* ‘do,’ both of which are extremely frequent lexical items in the language. It seems that the necessity of SM in disambiguating meaning or carrying grammatical information is less a factor of its survival in Welsh than it was for AM and NM. Baseline speakers are, in fact, so comfortable with SM that they are more likely to lenite in the absence of any trigger than they are to neglect to employ SM where it is triggered. Table 6.7 below presents the figures for this trend toward overuse following lexical triggers.

SM has clearly become the most robust representative of the ICM system and its default mutation. Only one baseline and two heritage Welsh informants employed the NM in instances when it was not the mutation that had been triggered. The AM is even more weakly preferred in

⁷ It could be argued that SM on the synthetic past verb is functional in that it signals to the listener that the verb, often with reduced pronunciation of the person/number suffix and/or null subject, is indeed past tense instead of another synthetic form. The optionality of SM in this context, however, seems to me to indicate that it does not carry so great a functional load that it would be maintained in the baseline population for this reason, rather that it varies by dialect and idiolect.

the samples, with only one informant (a heritage speaker) ever using AM in lieu of the expected mutation. On the other hand, nearly half of the controls and over one third of the heritage speakers used SM when it was actually either AM or NM which had been triggered. I conclude from the imbalanced distribution of these three mutations that SM is by far the most robust, and as such, its phonetic effects are fully acquired by the heritage speakers, though all of its triggering contexts are not necessarily acquired as well. The role of SM in disambiguation is predicted to be a factor in heritage speaker maintenance of the SM, as it seems to be with AM and NM, but not the only factor.

Of the various contexts for SM, three categories are easily distinguished—SM by lexical trigger, SM as a signal of grammatical gender, and SM by syntactic trigger. The third of these categories has proven to be rather controversial in the literature, so it will be necessary for me to provide some review of those theories along with my analysis of the heritage Welsh samples. Luckily, the first two categories are comparatively straightforward. In the following three sections, I will address each SM context category in turn and discuss the apparent stability of this piece of Welsh grammar in the language produced by the heritage Welsh speakers.

6.3.1 lexical triggers of SM

From Table 6.6, it is clear that there are far more lexical triggers of SM than of either NM or AM. The narratives provided by both the baseline and heritage speakers reflect the disproportionate representation of SM in their language as well. The baseline speakers averaged 25.15 total instances of SM in their narratives (0.39124 per utterance), *far* surpassing the average of either AM (0.15 per speaker) or NM (0.9 per speaker). The heritage speakers showed a fairly high level of maintenance of SM as well, averaging 10.9 total instances of SM in their narratives (0.111689 per utterance). See Table 6.7 below.

Table 6.7 Representation of Soft Mutation (SM) following lexical triggers in the samples

	Baseline		Heritage Speakers	
	total:	speaker average:	total:	speaker average:
SM triggered and present	460	23	185	9.25
SM triggered but absent	91	4.55	143	7.15
SM after no trigger	24	1.2	22	1.1
SM after an AM trigger	8		6	
SM after a NM trigger	12		5	

The baseline Welsh speakers used SM more frequently than the heritage Welsh speakers. This is unsurprising given the discussions of Part I of this dissertation which described the resultant grammar of incomplete acquisition and given the observations made above about the maintenance of AM and NM in heritage Welsh. The lexically triggered contexts of SM are clearly not all acquired by the heritage speakers—the speaker average for omitting a lexically triggered SM was nearly as high as their average for successfully employing that mutation after a lexical trigger. Generally speaking, as can be seen in table 6.6, those lexical triggers are most often lexically distinct or unambiguous enough on their own that the SM is not carrying a particularly heavy functional load. This is not to say, however, that the SM system is not present in the heritage grammars as well. It is important to note that there was only one heritage speaker narrative which lacked any application of SM after a lexical trigger—but that narrative contained only a single such context and four other instances in which SM *was* applied as an indication of gender (albeit incorrectly).

Knowing that the lengths of the narratives were not significantly different between the baseline and heritage speakers, the disparity in total appearance of SM per speaker is noteworthy. The SM system is clearly available to the heritage speakers—i.e., the lenited forms of the nine mutable consonants are correctly acquired by the heritage speakers—but SM is not consistently applied. 43% of all SM lexical triggers in the heritage Welsh narratives (primarily prepositions) were not followed by the application of SM. This figure does not indicate a robust presence of SM in the heritage grammars. SM may be the best represented of the three types of mutation in Welsh, but its application in the heritage language is far from the relative ease with which baseline speakers apply it whenever appropriate, i.e., at a rate of 83.5% in all lexically triggered instances.

Yn ‘in’ was discussed above as a trigger of NM. *Yn*, however, is actually four separate homophonous lexical items in Welsh, two of which trigger SM—*yn* the adverbial particle and *yn* the predicative particle. As a reminder, example sentences (6) through (8) are repeated below, which each exemplify one or two of the *yn* homophones.

- (6) Mae e 'n cerdded yn gyflym
 is.3sg he PROG walk ADV SMquick (radical form: cyflym)
 He is walking quickly.
- (7) Mae e yn dŵll
 is.3sg he/it PRED SMhole (radical form: twll)
 It's a hole.
- (8) Mae e yn nhŵll
 is.3sg he/it in ^{NM}hole (radical form: twll)
 It's in a hole.

The adverbial *yn* is not well represented in the heritage speaker narratives—it was only used 20 times total, only 8 of which occurred in conjunction with a mutable consonant (in which the speaker did not lenite a following mutable consonant in 3 instances and applied SM appropriately in 5 instances). Given these limited data points, I hesitate to draw any strong

conclusions about the maintenance of adverbial *yn* as a trigger of SM in heritage Welsh, though with 62.5% successful SM in those triggered instances in the samples, the adverbial SM may be worth further investigation. The baseline speakers, as a point of comparison, used adverbial *yn* a total of 56 times, and of those, 26 occurred with a mutable consonant following. Only in one instance did a baseline speaker fail to employ SM in that context—that is a rate of 96.2% successful application of SM in this triggering context in baseline Welsh. The predicative *yn*, on the other hand, is much better represented in the samples. Table 6.8 below presents a few relevant figures.

Table 6.8 Predicative *yn* and SM in the Welsh samples (heritage and baseline)

	Baseline Welsh Speakers/Controls		Heritage Welsh Speakers	
	total:	speaker average:	total:	speaker average:
SM of mutable consonant following <i>yn</i> (predicative particle)	68	3.4	26	1.3
No SM of mutable consonant following <i>yn</i> (predicative particle)	7	0.35	16	0.8
<i>yn</i> (predicative particle) followed by a non-mutating consonant or vowel	88	4.4	64	3.2

The heritage speakers applied SM to a mutable consonant following the predicative particle in 62% of its appearances, which is not a rate of impressive consistency. It is important

also to note, however, the far greater occurrence of the predicative particle followed by a non-mutating letter. The average heritage speaker narrative contained 5.3 instances of the predicative *yn*, but more than half of those would not have realized SM anyway, because the following word did not begin with one of the nine mutable consonants. The consequently infrequent appearance of SM following this trigger in even the baseline language (in only 68 out of 163 total occurrences of predicative *yn*, from table 6.8) could mean that the acquisition of this particular grammatical process would require a greater amount of total input or exposure than the relative frequency of this particle itself in the language would suggest.

On the other hand, given what we've seen of the heritage mutation system so far, the functional load of SM must also be examined as a possible determining factor in the acquisition of each of its contexts individually. As it happens, there is no ambiguity between the four *yn* homophones if NM is maintained after *yn* 'in.' Sentential context alone can disambiguate the predicative particle, progressive particle, and adverbial particle, as shown in examples (6) through (8) above. Because SM follows both the adverbial and predicative particle, its role would not be to disambiguate them. Disambiguation between these two *yn*'s is more likely facilitated by the fact that they do not occur in the same position within a sentence, and by the fact that the class of words following is distinct for each—the progressive particle precedes verb-nouns and the adverbial particle precedes adjectives. One could say, then, that the only truly motivated mutation following any of the *yn*'s is NM after 'in,' and even that context seemed to be acquired by only half of the heritage speakers who presented it. Therefore, while the *yn* homophones seem like they would be a perfect test case for the maintenance of ICM in its disambiguating role, the data show that the mutations themselves do not carry the disambiguating load alone, and thus are not as reliably produced by the heritage speakers as was predicted.

6.3.2 *SM and grammatical gender*

The gender of a noun in Welsh is indicated only by SM, which appears on the initial consonant of a feminine noun following *un* ‘one’ or the definite article, *y/yr/’r*,⁸ and on the initial consonant of an adjective following a feminine noun. There are no mutations or other indicators which signify masculine gender. Unlike the thoroughly integrated systems of gender agreement in languages such as the Romance languages, in which gender is necessarily apparent on all articles, nouns, and adjectives to satisfy agreement conditions, the system in Welsh is far less extensive. Gender only manifests in the feminine context, in which SM is triggered on the noun and/or its following adjective. Because SM only affects 9 consonants (as seen in table 6.1), there is no way of knowing whether a speaker is aware of a noun’s gender in those contexts where a feminine noun and its adjective both begin with one of the several non-mutable consonants or a vowel. This is not an infrequent scenario.

Given the limited actual manifestation of gender in Welsh, despite the fact that the dictionary does label every noun with a gender, it might be preferable to imagine gender in Welsh not as a masculine/feminine binary, but rather as a [feminine] versus [unspecified] system. This system would permit nouns to be sufficient lexical entries even without any gender feature, but the SM-triggering tag of [+feminine] could be added as it was acquired. This is a distinction that is really most important in the acquisition process, when the more information-packed and the more obvious or transparent a particular feature of the grammar is, the more effortlessly it is acquired (i.e., with less input). The heritage speakers may be able to shed some light on which of these two systems is the more accurate description of the Welsh gender system—the hypothesis being that if gender were salient on every noun that is said in Welsh, as it would be in a

⁸ The form of the definite article in Welsh does change depending on local conditions, but those conditions have to do with its phonetic context (i.e., a preceding or following vowel), not the gender of the noun.

feminine/masculine binary system, then we should expect our HSs to have learned it fairly well—it would have been necessary within that grammatical system to in order to complete those lexical entries. But if the only instances of gender actually being an essential part of fully knowing the noun are in those contexts where the initial consonant happens to be mutable, and/or the following adjective is mutable, then we should expect a higher rate of errors in the HW gender system. Table 6.9 below presents the relevant data.

Table 6.9 SM and gender in the Narrative Samples

	Baseline		Heritage Welsh	
	total :	speaker average:	total:	speaker average:
SM of feminine (expected)	181	9.05	98	4.9
no SM of feminine (feminine misidentified as masculine)	23	1.15	60	3
SM of masculine (masculine misidentified as feminine)	28	1.4	48	2.4

This application of SM is fairly robust in the baseline samples—feminine nouns are correctly identified in 89% of instances where mutation effects are expected. The heritage speaker narratives, on the other hand, exhibit very weak control over grammatical gender. The heritage speakers identified a feminine noun as feminine in only 62% of instances where SM was expected. This is better than chance guessing, but, taken together with the fact that nearly half as many masculine, non-mutation contexts were misidentified as triggers of feminine SM, the gender system can not be described as an aspect of the language which is well acquired by the

heritage Welsh speakers. Either the maintenance of grammatical gender—a system of dubious functional necessity—is neglected by the heritage speakers, or the total exposure the heritage speakers have had to Welsh has not reached the critical mass necessary to acquire such an opaque piece of grammar. Recall that the baseline speakers themselves are not infallible when it comes to gender identification (mutating 89% of mutable feminine tokens)—perhaps an ill omen for the fate of gender in baseline Welsh as well.

According to my initial hypothesis above, more gender errors in the heritage Welsh samples would mean an underspecified versus [+feminine] system, but error rates closer to those of the control norms would mean that every lexical item did have either a [masculine] or [feminine] feature attached to it in order to be a complete lexical entry. Neither of these options seem to hold up very well. The (relatively) equivalent error rates in both directions (masculine for feminine and feminine for masculine) seem to support the proposal that gender is always specified, but the fact that there are so many errors must be an indication that gender is not very salient to the acquirer. Recall that the controls are also only applying the gender mutation at a rate of 89%. The possibility seems very real to me that it is actually a three-way system in which the noun is underspecified (or blank) for the gender feature as a starting point, and then the [feminine] or [masculine] features are acquired gradually and with more exposure. This would allow for the figures of table 6.9 and also admit the fact that (in Welsh, at least) gender really is of dubious functional necessity. It is a formal aspect of the language only, and because the system of agreement is not actually very robust (meaning that it is only apparent on feminine, not masculine forms, and only on those 9 mutable consonants), and because of their limited exposure to baseline input, the heritage speakers are not native-like in their production of the gender mutation.

6.3.3 syntactic triggers of SM and the direct object mutation (DOM)

One of the most mysterious contexts of the ICM is the Direct Object Mutation (DOM), so-called because of the appearance of SM on the initial consonant of the complement of an inflected verb. This is, of course, a departure from the ICM contexts discussed above which are in linear contact with their so-called “triggers”—following the definite article, the feminine noun, various prepositions, and so on.⁹ But DOM seems closely connected to two other mutation contexts which are often included in theoretical analyses—one in which the subject of a sentence will show initial SM if separated from its inflected verb by the expletive *yna* ‘there’ or by another phrase, such as an emphasized or parenthetical adverbial phrase, and another in which the verb-noun complement of a non-finite adverbial phrase of time (also known as an *i*-clause) will appear with SM though it is always preceded by a prepositional (*i* ‘to’) phrase. The examples that follow are taken from the narratives provided by the baseline Welsh speakers.

(10) Direct Object Mutation (DOM)

Cafodd e fr_{aw}. (radical form: braw)
got.3sg he \fright
He got a fright.

(11) No SM on the object of a verb-noun

Mae o 'n gweld carw. (radical form: carw)
is.3sg he PROG see stag
He sees a stag.

⁹ There are other non-lexically triggered contexts as well, but they are less relevant to the immediate topic: e.g., an adverbial phrase (without *yn*, the adverbial particle) may appear with SM regardless of its location in the sentence; a sentence-initial inflected verb may (idiosyncratically) appear with ICM (though *Mae* ‘is’ never does); and while SM is lexically triggered by the relative particle *a*, it appears even when that particle is elided.

(12) SM on a VP complement¹⁰

Wnaeth Twm ddihuno. (radical form: dihunio)
did.3sg \wake
Tom woke up.

(13) SM on a subject separated by an expletive (postposed subject)

Mae 'na froga mewn pot. (radical form: broga)
is.3sg there \frog in pot
There is a frog in a pot.

(14) SM on a subject separated by a prepositional clause (postposed subject)

Mae gan Twm froga. (radical form: broga)
is.3sg with \frog
Twm has a frog. (literally: A frog is with Twm)

(15) SM of the verb-noun in an *i*-clause

Wrth i-ddo gwympo naeth y gwenyn mynd ar ôl y ci.
at to-him \fall did.3sg the bees go on track the dog
As he fell, the bees went after the dog. (radical form: cwympo)

It has been convenient so far to speak of “triggers” of ICM, but these non-lexically induced SM contexts complicate the issue somewhat. What has easily been conceptualized as a floating autosegment of phonological material, i.e., the ICM, which attaches to the following element in a linear arrangement of words (see Lieber 1983 for this analysis), must now be re-imagined in these cases as something which is syntactic rather than lexical, and structural rather than linear.

As such a distinctive component of an already distinctive system, DOM has interested linguists as long as Welsh has been studied within a generative framework. The inflected verb should not be able to skip over other phonological material in order to spread SM onto its complement if the motivation for this type of ICM is the same as those which have been

¹⁰ I am following Roberts (2005) and Borsley (1993) in taking the verb-noun to be a non-finite verb, more verbal than nominal, i.e., not to be interpreted strictly as a noun in any case. This necessitates an explanation of the SM in (9) beyond what can be explained for the DOM in (8), as the verb-noun cannot be interpreted as a direct object.

discussed above. Indeed, how could the inflected verb be considered a lexical trigger at all? It is the inflection itself that seems to trigger the mutation, not the lexical verb. The complements of non-finite verbs, the so-called *berfenwau* ‘verb-nouns,’ never realize SM (as shown in example (11) above). Similarly, SM on the initial segment of a verb-noun in an *i*-clause configuration (as in (15) above) can not be triggered by the preposition *i* (which is a SM lexical trigger) because of its intervening complement. There have been two particularly influential proposals during the last thirty years which attempt to explain the cause of these mutations—SM as a representation of (abstract) Accusative Case, and the NP (later XP) Trigger Hypothesis. Both of these accounts will briefly be presented here, followed by an analysis of these syntactically triggered mutations in the heritage Welsh samples.

DOM was explained in Awbery (1976) as a transformational rule adding the feature [+soft mutation] to the Direct Object (DO) late in the syntactic derivation.

(16) T. Soft Mutation of Direct Object (obligatory)

SD. (s V NP NP X)
 1 2 3 4 5
 SC. Add the feature [+soft mut] onto 4.

(Awbery 1976, 8-9)

Awbery’s analysis assumes a rule-based approach to the syntactic derivation, assigning SM as a marker of direct-object-hood as indicated by its position in the sentence. This avoids over-generalizing to SM on the objects of verb-nouns, which is not observed in the language. The rule presented in (16) is descriptively accurate, but as the theoretical frameworks within Linguistics have evolved, so has the explanation of DOM. Awbery’s rule fails to capture how DOM signals any useful information to the interlocutor—lenite the fourth element of an utterance to indicate that it is the fourth element is both unnecessary and logically circular. Use of ICM is more likely

to be motivated by the need to efficiently transmit information from the speaker to the listener, and in this case the obvious purpose of the mutation is to indicate a grammatical relation between the inflected verb and one of its arguments (its direct object).

A more structural analysis capturing this assumption was offered by Lieber (1983). This is the first significant departure from the rule in (16), in which SM is taken as an indication of abstract Case. This analysis is elaborated upon in Zwicky (1984), in which the primary complication to any analysis in which the verb assigns SM to the DO is presented as the Trigger Constraint.

(17) the Trigger Constraint (TC) : The trigger determining a rule feature for a morphophonemic rule must be adjacent to the affected word and c-command it.
(Zwicky 1984, 389)

The TC is the obstacle around which linguists have to maneuver in their attempts to account for mutation triggers which ostensibly violate the assumption that mutation is a linear effect—i.e., that mutation can only be triggered by a previous lexical item.¹¹ According to the TC, the intervening subject in sentences like (10) would block SM if it were triggered by the inflected verb. This highlights the difference between the lexical triggers we have discussed above and what I am referring to here as “syntactic triggers.” Later analyses call into question the validity of the TC, but Zwicky’s and Lieber’s arguments work around it.

Still assuming that SM in sentences like (10) is a marker of the DO, Lieber proposes that abstract Case from the verb fails to case-mark its DO when another Noun Phrase (NP) (the subject) intervenes, but a syntactic rule inserts a null preposition (P) before a NP not adjacent to

¹¹ SM as an indicator of feminine gender is also triggered by the preceding lexical items in this linear fashion, whether those preceding items are the definite article, *un* ‘one,’ or a feminine noun. The mutation may only be realized in the feminine context, but the adjacency condition of the TC is nevertheless obeyed.

its governing verb. The only phonological substance of P is a floating autosegment of SM. Thus Case is assigned to, and SM is triggered on, the adjacent element.¹² Problems with Lieber's analysis emerge when evidence of this null P is compared with the behavior of overt prepositions, particularly under conditions of *wh*-movement, but, as I do not have the space to go into detail here, I refer the reader to Harlow (1989) for a full analysis.

Zwicky (1984) departs from Lieber's analysis in not requiring a null preposition, but supports the assertion that Case is key to interpreting the DOM. He states that

“what is at work must be a relationship between constituents within a VP [Verb Phrase] That is, we are looking at some sort of government of (morphosyntactic) case: NP in a construction with a finite V has one mark—let us say [+x]—while NP in construction with an infinitive V has a different mark—let us say [-x].” (Zwicky 1984, 391)

Where [+x] is to be interpreted as Accusative case and [-x] as Genitive case. The TC is obeyed by Zwicky's assertion that a discontinuous VP constituent is possible, which allows the Verb (V) to be “adjacent” to its DO, albeit abstractly. The details of this part of his analysis are not essential here, but the interpretation of SM as Accusative case allows us to account for its absence on the object of the verb-noun—where SM is not expected regardless of adjacency. The object of a verb-noun appears either in genitive position, as in (11) above, or, if a pronoun, as one of the possessive pronoun clitics, as in (18) below (which is also taken from a baseline narrative).

(18) Possessive pronoun as the object of a verb-noun

Mae ‘na uh@fp llygoden yn dod allan ac yn ei ddychryn.
 is.3sg there mouse PROG come out and PROG his \frighten
 There is uh@fp a mouse coming out and frightening him.

¹² Lieber (1983) and Zwicky (1984) are working within the Government and Binding theoretical framework, which holds that overt noun phrases must be assigned Case and that Case can only be assigned under adjacency. (Ball and Müller 1992, 137-138) (Case does not need to be overtly marked in the morphology.)

The verb-noun, according to Zwicky's analysis, assigns Genitive rather than Accusative case, and thus are the observed differences in these Welsh constructions accounted for (in which the object of a synthetic verb receives Accusative case, or SM, and the object of the verb-noun receives Genitive case, which manifests no mutation). The case for Case has also been taken up by Roberts (1997; 2005), who proposes, rather, that SM is assigned by a functional category (Agr_O, later *v*).¹³ Thus the TC is circumvented, in a way, by allowing *non-overt* components of the syntactic tree to trigger mutation on adjacent lexical items. For our purposes, it is sufficient to say that these theorists propose that Accusative case is assigned by structural position rather than the non-adjacent, overt verb, and that its morphological realization is SM.

The major alternative to the SM-as-Case proposal is the Noun Phrase Trigger Hypothesis (NPTH) (later the XP Trigger Hypothesis). Unsatisfied by Lieber's (1983) and Zwicky's (1984) proposals, Harlow (1989) allows phrasal categories themselves to be triggers of SM. This analysis is taken up and expanded upon in Tallerman (1990; 2006), Borsley and Tallerman (1996), and Borsley (1997; 1999), who find that the descriptive and predictive powers of the NPTH outweigh any uncertainty about its place within current theoretical frameworks.

(19) Noun Phrase Trigger Hypothesis:
 NPs are soft mutation triggers.
 (Harlow 1989, 303)

A relationship of linear adjacency between overt elements is of central importance in these analyses, emphasized by the claim that "no child can ever learn a dependency particular to some but not all natural languages which is stated in terms of elements related at a distance."

(Tallerman 1990, 404) This is strong adherence to the TC, unlike the arguments in favor of SM-

¹³ In the interest of space, I refer the reader to the studies themselves rather than present the details of these analyses here.

as-Case which were just discussed above. The NPTH was found to be inadequate in Borsley and Tallerman (1996) and Tallerman (2006), who posit an amended XPTH.

(20) XP Trigger Hypothesis (XPTH):

All phrases trigger mutation under appropriate conditions
(Borsley and Tallerman 1996, 1)

According to the XPTH, any phrasal element can cause SM on the initial consonant of an immediately following element. In addition to accounting for the DOM, this would explain sentences like (12), (13), (14), and (15), in which SM is observed on VP complements of the verb, postposed subjects, and verb-nouns in *i*-clauses. The main problem with this analysis is theoretical, which Borsley (1997; 1999) addresses by turning away from the theoretical assumptions of the Principles and Parameters framework to those of Head-Driven Phrase Structure Grammar.

What the XPTH fails to address, however, is the salience of these syntactic mutations in facilitating communication. The idea that all phrases lenite I find unsatisfying for this reason. The mutations in other contexts (lexically triggered and gender identifying) serve a communicative purpose which the XPTH precludes in the syntactic mutation contexts. The XPTH also tries to capture every instance of non-lexically or gender triggered SM under a single account, and thus sacrifices some much needed theoretical precision, but in so doing also emphasizes its failure to account for *all* such instances—neglecting sentence initial adverbial phrases of time and place, verbs in questions or those inflected for the past tense (idiosyncratically), nouns in apposition, and vocatives. There is no theoretical reason to denude an account of SM phenomena to such an extent that the functional load of the mutation is lost. The XPTH supposes that crossing certain phrase boundaries is sufficient to trigger a mutation effect, but, while the data may be distributed in such a way that seems to support this claim, SM as a signal of word-order variation or argument identity would be better motivated.

The relative merits of these two most prominent proposals have been argued *ad infinitum*—a debate which continues still, with new data introduced and adaptations made to the original theories—but Ball and Müller (1992, 158-160) put forward an alternative explanation of syntactically motivated SM. Admittedly, their proposal is offered outside any formal theoretical framework, but their approach firmly returns the focus to the grammatical salience of the ICM system.

“It would appear to be the case that SM in non-normal word order is used to mark the fact that the normal ordering of the syntax *has* been altered: it highlights the shift in focus from one constituent to another.” (Ball and Müller 1992, 159)

Sentences (13), (14), and (15) exemplify this, whereby the “disruption,” or movement, of linguistic material is marked by SM on the immediately following element. As regards the DOM, they propose that it is the syntactic/semantic frame itself, containing an inflected verb and its DO argument, which triggers SM on the initial segment of the DO—the SM triggered precisely because it is *not* linearly adjacent to the verb (which happens to be normal VSO order in Welsh). In some ways, this proposal comes full circle, back to the lay assumptions about SM which predate the formal approaches discussed above. A formulation of these ideas which is not so theoretically neutral, however, and which focuses on accounting for the functional load of the mutation, may nevertheless be possible, if beyond the scope of this project.

As a concession to space and the necessity of returning to the topic of *heritage* Welsh, I must conclude this rather abbreviated introduction to the topic of syntactically triggered mutation. For our purposes, DOM should be well enough explained at this point to appreciate the significance of its loss or maintenance in the narratives provided by the informants. The heritage speaker, as one with limited exposure to Welsh, would more likely acquire a grammatical structure like these syntactic mutation triggers the simpler and more easily observed its function. The appearance of the SM in (so-called) syntactically triggered contexts in the heritage system

should be determined by communicative salience. Table 6.10 below briefly summarizes the occurrence of the syntactic SM in both sample groups.

Table 6.10 Syntactic triggers in the narrative samples

	Baseline samples (totals):			heritage Welsh samples (totals):		
	SM applied	SM omitted	non-mutable word	SM applied	SM omitted	non-mutable word
SM of DO of synthetic verb (DOM)	6	4	15	0	1	4
SM of VP complement of synthetic verb	18	19	8	4	2	0
SM of post-posed subject	23	5	8	4	9	9
SM of verb-noun in <i>i</i> -clause (non-finite subordinate clause)	11	0	5	0	0	0

The figures in table 6.10 are less indicative of the retention or loss of syntactic SM in heritage Welsh than they are of the reduced grammatical options in the heritage system in general. The heritage Welsh samples only contained 5 instances of a clause-initial synthetic verb with a direct object, and only 1 of those instances was a realizable target of SM. The fact that the heritage speaker who employed this construction also failed to successfully mutate the DO in that single instance is not significant enough to make any statements here about the salience of that particularly grammatical feature to the heritage speaker, unfortunately. The baseline informants,

in this case, may be more informative. Out of 25 total clause-initial synthetic verbs which occurred with a DO, there were 10 instances in which the DO began with a mutable consonant. The fact that only 6 of these were actually mutated in the narrative samples must indicate that the system of DOM is reducing *in the baseline*, let alone the heritage grammar. A 60% rate of successfully realizing this grammatical construction, the DOM, is a remarkable observation, and one which deserves the attention of future research. The realization of SM on the VP complements of clause-initial synthetic verbs is even more striking—a 67% rate of realizing SM on a mutable consonant in the heritage samples, but the baseline speakers actually omitted the SM *more often* than they realized it when the consonant was mutable, only mutating at a rate of 49%.

These two mutation contexts, which are both SM on the complement of a synthetic verb, are worth close analysis in the native speaker community. It is the baseline Welsh grammatical system which seems to be showing signs of simplification in this case. The theoretical analyses discussed above, which are intended to help explain the function of syntactic mutation, are, in fact, themselves in need of reworking if the system of SM in these contexts truly is undergoing simplification in standard Welsh. Any analysis now has to account for the fact that even Welsh-dominant native speakers are just as likely to omit these mutations as they are to employ them. If arguments in favor of one or the other proposal are based on the salience or apparent functionality of the mutation, then the high rates of SM omission undercut that thesis. Some other aspect of Welsh syntactic structure or morphology is presumably overtaking the functional role of these two syntactic mutations, making them redundant, and, thus, able to be omitted. An explanation of this phenomenon is beyond the scope of this dissertation, however, though the discovery of this unexpected simplification in the baseline will certainly spark new research on the topic.

The application of SM on post-posed subjects and on the verb-noun of *i*-clauses (non-finite subordinate clauses) is more robust in the baseline samples, and thus is a less problematic comparandum for the heritage grammars. Setting aside the *i*-clauses, which were uniformly

avoided by the heritage speakers,¹⁴ the heritage speakers and the controls can be compared with regard to their realization of SM on post-posed subjects. The controls employed the SM in this context at a rate of 82%. The heritage speakers, on the other hand, employed the mutation in this context at a much lower rate of 31%. Even setting the upper limit, or the target rate, as the baseline standard of 82%, the heritage speakers do not come close to native-speaker norms. This piece of the grammar is not acquired to anywhere near complete proficiency by our heritage speakers, and so must be one which suffers under conditions of limited exposure.

This chapter has been a close examination of the system of ICM in heritage, and baseline, Welsh. AM and NM were found to be maintained in those contexts for which the mutation facilitates communication by reducing ambiguity, contra my predictions that, because these two mutations are so infrequent in the baseline, they would not have been acquired in the heritage system. Disambiguation has also been shown to be a motivator of SM maintenance as well. The disambiguating role of ICM is particularly apparent when distinguishing homophonous lexical items, such as the possessive adjectives *ei* —‘hisSM,’ or ‘her^{AM},’—and the ubiquitous *yn*—‘in^{NM},’ the adverbial particle (SM), the predicative particle (SM), and the progressive particle (no mutation). Simplification was found in the gender system of heritage Welsh, as well as in the heritage system of syntactic mutations, which also appears to be simplifying in the baseline.

¹¹ The absence of *i*-clauses in the heritage Welsh samples is not unexpected, as heritage speakers are less likely to use embedded structure in general. (Polinsky and Kagen 2007, 383) (See Chapter 5 for a discussion of the frequency of embeddings as an indicator of fluency.)

A thorough explanation of every aspect of the Welsh verbal system would be a cumbersome undertaking within this dissertation, but the heritage Welsh data manifest some interesting divergences from the baseline grammar which do require an understanding of that baseline. In the following sections, I will introduce those grammatical divergences along with a brief presentation of the descriptive and theoretical work on baseline Welsh that is relevant to the heritage language structure in question.

Before I present the divergences, however, I feel that it is worth noting the areas where the heritage grammar does conform to the baseline. For many reasons, the Welsh verbal system seems as though it should be particularly vulnerable to reanalysis by heritage speakers whose dominant language is English. Welsh has verb-initial clause structure,¹ a comprehensive system of verbal inflection, and extensive agreement morphology, for example. These features are not characteristic of English grammar, so their acquisition and maintenance by heritage speakers is entirely dependant on Welsh input, with no reinforcement from analogous structure in their dominant language, and with potential negative transfer from that dominant language (see

¹ Verb-initial clause order in Welsh is of particular interest, partly because it has been a topic of such attention by linguists of the Celtic languages, but also because it is characteristic of only some 10% of world languages. (Carnie and Guilfoyle 2000, 3) With such a distribution, the question arises of why such clause structure is so uncommon, and whether it is, in fact, underlying SVO order. Most analyses have assumed that the verb-initial order is derived by movement of the verb out of VP into a higher functional head position, whether it be T (Rouveret 1994), Agr (Roberts 2005), or some other projection (a notable exception being Borsley's (1989) flat structure in a HPSG framework). Many proposals have also been made for the motivation of this verb-movement—e.g., Sproat (1985) arguing that the rightward directionality of Case assignment by INFL necessitates the V+INFL complex move to the left of the subject—but my intention in drawing the reader's attention to this body of research is to appreciate how potentially complex this grammatical feature is. Our heritage Welsh speakers may be far from native-like, but their mastery of the verb-initial clause order must speak to the ease of acquisition of this verb-movement process and its motivating parameter(s), which may flavor our understanding of that process itself.

Chapter 4 for a discussion of transfer and interference between languages in a bilingual system). The heritage Welsh narratives, however, do not show as much attrition or reanalysis of these features as may have been predicted. The verb-initial clause structure of Welsh is firmly acquired by the heritage speakers (only the least proficient of the informants did not begin each of her clauses with an inflected verb, and more on her in section 7.1), and the inflected verbs that were used in the heritage narratives were native-like in form, albeit also generally unvaried.² Evidently, the amount of input received by the majority of the heritage Welsh informants was sufficient to acquire these characteristics of the language. (See Appendix I.1 for those input data.)

Simple Welsh tensed clauses use the canonical VSO structure, but more common in the samples of both the heritage speaker and control groups are auxiliary constructions—VSVO³—especially those which use *bod* ‘to be’ as the auxiliary, i.e., *bod*-periphrasis. The baseline samples use *bod*-periphrasis in nearly half of their clauses (see table 7.1 in section 7.1). The *bod*-periphrastic construction consists of a clause initial form of *bod* ‘to be,’⁴ followed by the subject, an aspectual particle (recall *yn* the progressive particle from Chapter 6), a verb-noun (VN), and

² There are, however, a small handful of exceptions in the heritage Welsh samples—e.g., the non-native root *sefyll*- in the form *sefyll-odd* ‘he stood,’ which in the baseline would be *saf-odd* ‘he stood.’ *Sefyll* is not the root but the verb-noun, and though the root and verb-noun are often homophonous, they are not in this case. Appendix II.1 presents the heritage Welsh narrative samples and their glosses, including my annotations of noteworthy divergent forms (which are tagged by “[%]”).

³ I am calling the auxiliary construction word order ‘VSVO’ in order to highlight the position of the verb-noun, which has been used as evidence of underlying SVO order in Welsh. (See footnote 1 above; for Celtic as typologically SVO, see Ouhalla 1991, 108 ff.) If, on the other hand, VSO were instead conceptualized as VSComp(lement), then the two orders—VSO and VSVO—could be folded together and recognized as a single standard, i.e., non-emphatic, word order (though they will continue to be treated as separate constructions in this dissertation). I am also following Borsley (1993) in interpreting the verb-noun in these instances as a verb rather than a noun. (see also footnote 11, Chapter 6)

⁴ *Bod* ‘to be’ is not the only possible auxiliary verb in Welsh, but *bod*-periphrasis is the most common auxiliary construction. (3) is an example of *gwneud* ‘do/make’ as an auxiliary. (The modals *gallai* ‘(he) could,’ *dylai* ‘(he) ought,’ and *hoffai* ‘(he)’d like’ are also possible auxiliaries, for example.)

any complement of the VN. Sentences (1) through (6) below exemplify the organizational differences between the simple synthetic, VSO clause ((1) and (2)) and the auxiliary, VSVO construction ((3), (4), (5), and (6)).

- (1) Bwytais i frechdan ddoe.
eat.1sg.PST I SMsandwich yesterday
I ate a sandwich yesterday.
- (2) Nawn ni gawl yfory.
make.1pl.FUT we SMsoup tomorrow
We'll make soup tomorrow.
- (3) Gwneith e goginio cawl yfory.
do.3sg.FUT he SMcook.VN soup tomorrow
He will cook tomorrow.
- (4) Mae hi yn siarad â fe.
be.3sg.PRES she PROG speak.VN with he
She is speaking with him / She speaks with him.
- (5) Oedden nhw yn chwarae bob brynhawn pan oedden
be.3pl.IMP they PROG play SMeach SMafternoon when.COMP be.3pl.IMP
nhw yn blant.
they PRED SMchildren
They would play every afternoon when they were children.
- (6) Oeddwn i wedi dysgu gwers.
be.1sg.IMP I PERF learn.VN lesson
I had learned a lesson.

The present tense in colloquial modern Welsh must be expressed using a *bod*-periphrastic construction, exemplified in (4) above, as do the imperfect and pluperfect⁵ tenses, (5) and (6) respectively. Synthetic forms are required for other tenses and moods, unless a dummy verb (usually *gwneud* 'do/make') is used as the auxiliary to carry the tense and agreement markers

⁵ Literary Welsh also has a synthetic pluperfect, and the synthetic future form is considered a present/future tense in formal written registers, but the periphrastic constructions of the present and pluperfect tenses are the norm in colloquial Welsh. There is also a *bod*-periphrastic option for the future tense (though it carries a different semantic sense than the simple inflected form) and for the conditional mood. (Thomas 1996, 97 ff.)

instead of the semantic (main) verb, which appears as its VN complement, as in (3). Unlike the *bod*-periphrastic construction, *gwneud*-auxiliary constructions do not require aspectual markers to precede the VN complement. The verb, whether a synthetic form of the semantic verb or an inflected form of an auxiliary, shows person and number agreement with a subject pronoun, as seen in (1) through (6) above. The option to drop that pronominal subject (i.e., have a null subject) is also available in Welsh (see (7) below). Non-pronominal noun phrase (NP) subjects, on the other hand, do not trigger agreement morphology and instead must follow the third-person singular form of the inflected verb, exemplified in (8) and (10) below. (Thomas 1996, 97 ff.)

- (7) Cwmpodd mas o 'r fenest.
 fall.3sg.PST out from the window
 [He/She/It] fell out of the window.
- (8) Mae Ioan a Siân yn ieithyddwyr.
 be.3sg.PRES Ioan a Siân PRED linguists
 Ioan and Siân are linguists.
- (9) Maen nhw yn ieithyddwyr.
 be.3pl.PRES they PRED linguists
 They are linguists.
- (10) Adeiladodd y merched gastell tywod.
 build.3sg.PST the girls SMcastle sand
 The girls built a sand castle.
- (11) Adeiladon nhw gastell tywod.
 build.3pl.PST they SMcastle sand
 They built a sand castle.

These three aspects of the Welsh verbal system, in particular, will be addressed in the following sections—the alternation between analytic and synthetic verbal constructions, agreement morphology, and the null subject. Section 7.1 presents the ways in which the heritage Welsh samples show remarkable divergence from the baseline samples in the relative frequency of auxiliary constructions, particularly relying on aspectual markers (e.g., the progressive particle

yn) to carry the load of marking tense. Heritage Welsh agreement morphology, on the whole, is surprisingly consistent with baseline norms, but non-native agreement patterns do appear and will be discussed in section 7.2. Section 7.3 focuses on the licensing of a null subject, or the pro-drop parameter, and argues that the heritage speakers have not fully acquired this piece of Welsh grammar.

7.1 tense and aspect

A clause initial verb marks tense as part of its agreement morphology.⁶ The form of the stem of some verbs is different from the radical or dictionary form (i.e., the VN), which will also indicate that the form is inflected, but not specifically for which tense. The person and number agreement markers on the inflected verb follow a vaguely similar pattern across tenses, in which case the vowel (the nucleus of the syllable which is the inflectional suffix) often vitally contributes to distinguishing tense. See examples (14) and (15) below, where the vowel of the suffix is the only distinguishing segment between these past and future tense sentences. Welsh agreement morphology, however, is more fusional than concatenative. (Borsley et al. 2007, 355) There is no obvious or consistent separation of the morphological elements that mark person/number agreement from those that mark tense. Even the segments of the inflectional suffix that indicate person and number may vary across tenses (see examples (12) and (13) below). Thus, there is no reliable way to tease apart which segments of the morphology attached to a stem specifically indicate tense as opposed to person and number, and vice versa.

⁶ Mood (e.g. conditional) is marked analogously to tense in Welsh, so I am not considering it separately here. Moods other than the indicative were also extremely infrequent in the narrative samples.

- (12) Gwel-odd hi fe ddoe. (radical form: *gweld* ‘see’)
 see -3sg.PST she he yesterday
 She saw him yesterday.
- (13) Ch -eith hi ddim gadael mewn pryd. (radical form: *cael* ‘get’, with idiomatic
^{AM}get-3sg.FUT she NEG leave in time meaning of ‘get to’ or
 She won’t be able to leave in time ‘be allowed’)
- (14) Cynhali -on nhw ’r cyfarfod ddoe. (radical form: *cynnal* ‘hold’)
 hold -3pl.PST they the meeting yesterday
 They held the meeting yesterday.
- (15) Cynhali -an nhw ’r cyfarfod yfory. (radical form: *cynnal* ‘hold’)
 hold -3pl.FUT they the meeting tomorrow
 They will hold the meeting tomorrow.

Given this overlap between tense and agreement marking in Welsh, it may seem counterintuitive to have separated the topics of tense and aspect from agreement (section 7.2) within this chapter. Aspectual marking in the *bod*-periphrastic constructions of the heritage Welsh samples, however, is worthy of its own attention here. The aspectual markers, the particles *yn* (progressive) and *wedi* (perfective), are used in the *bod*-periphrastic construction to differentiate between the present progressive and the (present) perfect, or between the imperfect and the pluperfect, for example. See examples (16) through (19) below.

- (16) Mae hi yn siarad amdan-o heddiw.
 be.3sg.PRES she PROG speak about-it today
 She is speaking about it today.
- (17) Maen nhw wedi gwerthu eu tŷ nhw.
 be.3pl.PRES they PRF sell their house they
 They have sold their house.

- (18) Oeddet ti yn canu yn y gawod.
 be.2sg.IPFV you PROG sing in theSMshower
 You were singing in the shower.
- (19) Oeddech chi wedi darllen y llyfr cyn weld y ffilm.
 be.2pl.IPFV you.pl PRF read the book beforeSMsee the film
 You had read the book before seeing the film.

I mentioned above that the baseline narrative samples used the auxiliary construction in nearly half of all clauses. This is an important figure given its complication of the simple VSO characterization of the language which is usually assumed in linguistic analyses. Even acknowledging this measured frequency in natural baseline speech, however, heritage Welsh far surpasses the baseline in its use of *bod*-periphrasis. The heritage speakers overwhelmingly prefer to use this auxiliary construction over short-form synthetic verbs (like (1), (2), (3), (7), (10), (11) and (12) through (15) above)—the *bod*-periphrastic construction appears in 68.3% of the heritage Welsh clauses. In clauses of this type, the lexical verb carries none of the tense or agreement features because those features are attached to the auxiliary (*bod* ‘to be’). The semantic content of the verb is solely carried by the VN, which follows an aspectual marker⁷ (e.g., *yn siarad*, *wedi gwerthu*, *yn canu*, and *wedi darllen* in examples (16) through (19) above). Table 7.1 below provides some figures of the relative usage of the different verbal constructions in both the heritage and baseline Welsh samples.

⁷ I should point out that the pre-VN aspectual markers are not limited to these two examples, *yn* (progressive) and *wedi* (perfective). *Ar* conveys the sense of ‘about to,’ *am* ‘want to,’ *newydd* ‘just,’ etc.—but *yn* and *wedi* are by far the most common, and the use of the other markers in the samples was negligible. (Thomas 1996, 90 ff.)

Table 7.1 Distribution of Verbal Forms in the Heritage and Baseline Welsh Narrative Samples

	Heritage Speakers		Baseline Speakers	
	total:	speaker average:	total:	speaker average:
<i>yn</i> progressive aspect particle (with or without preceding <i>bod</i>)	842	42.1	623	31.15
<i>wedi</i> perfective aspect particle (with or without preceding <i>bod</i>)	219	10.95	162	8.1
<i>bod</i> -periphrasis	915	45.75	622	31.1
other <i>bod</i> -initial clauses (existential or descriptive, e.g.)	304	15.2	337	16.85
synthetic verb forms	77	3.85	266	13.3
copula	43	2.15	47	2.35

From these figures, it is clear that the heritage speakers rely heavily on periphrasis in constructing their utterances. The ratio of *bod*-periphrastic to synthetic verb forms in the heritage speaker samples is nearly 12 to 1, in the baseline samples that ratio is only 2.3 to 1. Much of this difference is possibly explained by the narrative choices of these two groups. The heritage speakers overwhelmingly chose to narrate the *Frog, Where Are You?* story in the present or imperfect tense, which can only be *bod*-periphrastic forms, whereas the baseline speakers more often made use of the simple past tense, a synthetic form. The different verbal choices of the two sample groups are apparent in table 7.1. As the narrative task allowed the informants to make

their own decisions regarding verbal forms, it might seem that drawing strong conclusions from these numbers is unjustified. These choices, themselves, however are very informative. We cannot determine with absolute certainty whether heritage speaker verbal choices are decisions made freely, or if those choices are, in fact, dictated by a limited range of acquired verbal options. The ratios cited above convince me of the latter—the heritage Welsh speakers choose to use periphrastic forms precisely because they have only incompletely acquired the system of synthetic verb formation.

Recall from Chapter 3 that “incompletely acquired” does not necessarily describe an interruption of the language acquisition process in a strictly chronological sense. The term refers to a steady state grammar, i.e., it is synchronically descriptive. (Montrul 2008, 21) The synthetic forms may have been part of the heritage speaker’s grammar at some point, and may even be present in the heritage grammar in a limited form at the time of the interview, but this piece of Welsh grammar is not very productive in the heritage language. The fact that heritage Welsh maintains *bod*-periphrasis but shows limited command over synthetic verbs in initial position may follow from several factors. The frequency of a particular grammatical form in the baseline input, as well as the transparency of its utility and structure, were both discussed as potential influences in the acquisition process in previous chapters. These two factors are both very likely at play in the heritage Welsh verbal system.

The *bod*-periphrastic forms are arguably more frequent in natural baseline Welsh speech, especially if we take the baseline narrative samples to be representative, with their ratio of 2.3 to 1 (*bod*-periphrastic to synthetic forms). This frequency in the input can be considered a factor in the superior acquisition of the analytic over the synthetic form in heritage Welsh, but recall the complexity of this assumption as was discussed in Chapter 3. The seemingly obvious intuition about the importance of frequency in the acquisition process—that the more a heritage speaker is exposed to a piece of grammar, the better she will acquire it—is complicated by the fact that we

can not describe what the steps of this process must be. Is the mind counting exposures or learning piece-by-piece, or is it a question of probability, where the likelihood of understanding a particular piece of grammar improves as the number of trials increases? (cf. Roeper 2007)

Unfortunately, the intuition of the frequency effect is difficult to substantiate and has been shown to be less significant than previously assumed. (cf. Polinsky 2005; Roeper 2007; Yang 2007)

Baseline frequency alone, therefore, can not account for the dominance of *bod*-periphrasis in heritage Welsh. The relative opacity of the two available methods of verb formation must be playing a role as well.

The separation of tense and agreement features from the lexical content of the verb must be providing some amount of transparency which the heritage speaker both assimilates more easily and produces more readily than synthetic verbal forms. The synthetic form requires a greater amount of planning and information compression into the first element of the sentence—the lexical verb in its correct root form, any necessary initial mutation, and the tense and agreement suffix. Indeed, the density of information in the verbal suffix itself (e.g., sentences (14) and (15) above) may be an obstacle in the acquisition process, in which the learner must observe all of the several relevant features of this suffix which is rarely longer than a single syllable. It is no surprise, then, that those who are less familiar and comfortable with the language would opt instead for one of the *bod*-periphrastic forms. In these constructions, the information packed into the first element, which is still the tense and the person and number agreement, is in the form of the same verb every time—*bod*. The forms of *bod* are also employed in existential and descriptive clauses (naturally, since *bod* means ‘to be’), adding to the enormous utility of the *bod* forms overall and to the certainty of their acquisition. (I refer the reader to Appendices I.1.12, I.1.13, I.2.11, and I.2.12 to fully grasp the extent of the use of *bod* in the samples.)

The heritage speakers’ use of the *bod*-periphrastic construction may represent a simplified verbal tense system, in which the present tense is conveyed by the present progressive

(which is entirely native-like), but a sense of past tense by the present-perfect. This means that the heritage speakers are interpreting the aspectual particle in *bod*-periphrasis as the key marker of tense, rather than the form of the verb itself. Its position in the VSVO-type clause is somewhat parallel to the position of the verb in English (SVO), which may be marked as a position of particular salience to these dominant English speakers. Sentences (4) and (17) are repeated here for reference—the position of the progressive and perfective aspectual particles, in conjunction with their following VN, parallels that of English SVO order, especially if the initial form of *bod* ‘to be’ (*Mae* in (4) and *Maen* in (17)) is given minimal processing attention by the heritage speakers.

(4) Mae hi yn siarad â fe.
 be.3sg.PRES she PROG speak.VN with he
 She is speaking with him / She speaks with him.

(17) Maen nhw wedi gwerthu eu tŷ nhw.
 be.3pl.PRES they PRF sell their house they
 They have sold their house.

One of the heritage speakers is particularly notable as an example of this reliance on the aspectual particle in conveying tense. The verbal system of her *Frog, Where Are You?* narrative seems to be completely reanalyzed from the baseline and heavily dependent on English (SVO) word order. Some examples of her clause structure follow in (20) through (22) below, but the entirety of this informant’s narrative can also be found in Appendix II.1 (speaker DL2).

(20) Bachgen bach yn cysgu ar y gwely ‘da ci.
 boy little PROG sleep.VN on the bed with dog
 A little boy sleeping on the bed with a dog.

- (21) Y bachgen a ci wedi ffeindio dwy ffrog.
 the boy and dog PRF find.VN two(f) frog(m)
 The boy and a dog having found two frogs.
- (22) Y <frogs> yn eistedd ar y coeden.
 the PROG sit.VN on the tree
 The frogs sitting on the tree.

These clauses lack a verb entirely (in which case they are hardly clauses at all), but the speaker seems to have reanalyzed the aspectual particles *yn* and *wedi* as tense markers, and thus, apparently, as verbs themselves. I have provided the participial translations of these aspect phrases (*yn cysgu* ‘sleeping’ (20), *wedi ffeindio* ‘having found’ (21), and *yn eistedd* ‘sitting’ (22)) because they would be the permissible interpretations of an aspectual phrase without *bod*-periphrasis in the baseline. Examples (20), (21), and (22) would be acceptable in the baseline as noun phrases, but not as complete independent clauses. This heritage speaker, however, seems to allow these structures to be complete clauses because she consistently produces the aspectual particle as a verb. Not once did she produce a form of *bod* ‘to be’ as the head of any of her clauses, and she certainly never produced any other synthetic verbal form.⁸

Interesting as the phenomenon is, this speaker is the only example of a heritage grammar showing such an extreme reanalysis of aspect marking as tense and the loss of clause initial verb forms entirely. The other heritage speakers do generally produce tense- and agreement-carrying verb forms in the initial position of their clauses. The heritage speakers overall have not reduced the system to such an extent as has speaker DL2, though forms of *bod* appear at a far higher rate

⁸ The complete lack of any inflected verb in DL2’s sample is an important observation—it would have been permissible by native speaker standards, if quite unwieldy, to have begun the narrative with a tense carrying verb but continued with serial (tenseless) aspect-VN phrases throughout the narrative (or as long as the subject remained the same) (see Rouveret 1994, chapter 4, for more on the serial construction). This is not what we see in DL2’s sample, however. There is no initial inflected verb nor is the subject consistent. (See Thomas 1996, 428-429, for an explanation of this construction.)

than synthetic forms of lexical verbs. That overwhelming preference for *bod*-periphrasis does indicate a simplification from the baseline system. The *bod*-periphrastic forms are being overextended by all the heritage speakers in the sample group, though to different extents by each individual.

The average figures across the sample narratives show that the inventory of verb formation methods is greatly reduced in the heritage language. There are twelve *bod*-periphrastic constructions for every one synthetic verb in the heritage Welsh samples, whereas that ratio is only slightly higher than two to one in the baseline. This is more than a sign of differing narratorial choice. The relative frequency of the synthetic and periphrastic structures in the baseline input is problematic as an explanation of this discrepancy between our sample groups, but a hypothesis about the effect of transparency in the acquisition process may be more promising. The processing/generating load required by *bod*-periphrasis is lower than that of synthetic verb forms precisely because of the separation of inflectional marking from the semantic verb which also makes these utterances seem circumlocutory as compared to baseline norms.

7.2 agreement

Inflected verbs in Welsh are marked for person and number agreement with a subject pronoun. A simple paradigm follows below for both the past, (23), and future, (24)⁹ tenses of *gweld* ‘see’.¹⁰

⁹ I have provided here the colloquial rather than the literary Welsh terminations, as presented in King 2003 (184, 191).

- (23) gwel-es (i) gwel-on (ni)
 see-1sg.PST I see-1pl.PST we
- gwel-est (ti) gwel-och (chi)
 see-2sg.PST you see-2pl.PST you.pl
- gwel-odd (e/hi) gwel-on (nhw)
 see-3sg.PST he/she see-3pl.PST they
- (24) gwel-a (i) gwel-wn (ni)
 see-1sg.FUT I see-1pl.FUT we
- gwel-i (di) gwel-wch (chi)
 see-2sg.FUT you see-2pl.FUT you.pl
- gwel-ith (e/hi) gwel-an (nhw)
 see-3sg.FUT he/she see-3pl.FUT they

This pattern of agreement only pertains when the subject (or the first element of a conjunct subject) is a pronoun; in any other case the default form is the third-person singular. Examples (8) through (11) are repeated below for reference. Sentence (25) presents the usual agreement pattern followed in cases where there the first element of a conjunct subject is a pronoun, in which the verb is marked for agreement with that pronoun, regardless of the second element.¹¹

- (8) Mae Ioan a Siân yn ieithyddwyr.
 be.3sg.PRES PRED linguists
 Ioan and Siân are linguists.

¹⁰ I have chosen to illustrate verbal agreement with a non-periphrastic construction, but the inflected form of *bod* ‘to be’ in *bod*-periphrasis also exhibit their own patterns of person and number agreement with a following pronominal subject.

¹¹ This left-conjunct, or first conjunct agreement pattern has generally been explained as a consequence of the crucial role of superficial linear order in Welsh agreement morphology. (see Borsley 2009; Borsley et al. 2007, 205-206 and 361; Rouveret 1995, section 5.1; Sadler 1999)

- (9) Maen nhw yn ieithyddwyr.
be.3pl.PRES they PRED linguists
They are linguists.
- (10) Adeiladodd y merched gastell tywod.
build.3sg.PST the girls SMcastle sand
The girls built a sand castle.
- (11) Adeiladon nhw gastell tywod.
build.3pl.PST they SMcastle sand
They built a sand castle.
- (25) Est ti a Gareth allan neithiwr.
go.2sg.PST you.sg and out last.night
You and Gareth went out last night.

The baseline Welsh samples, unsurprisingly, contained no instances of divergence from the pattern of agreement presented above. The baseline informants always inflected their verbs to agree with the person and number of a subject pronoun, or to be the default, third-person singular form when preceding a non-pronominal subject. There are 941 inflected verbs in the entire baseline sample set which follow this agreement pattern. The heritage Welsh speakers are also very consistent in following this pattern (though as I said above, the great majority of verb forms were iterations of *bod* ‘to be’). 987 inflected verbs in the heritage samples show native-like agreement, though there are also 6 instances of divergence from the pattern (in the samples of 3 speakers). Table 7.2 below presents the total instances of agreement and disagreement observed in the heritage samples. The great majority of verbal forms show native-like agreement morphology.

Table 7.2 Incidence of agreement morphology in the heritage Welsh narrative samples

	native-like agreement:	non-native like agreement:
<i>bod</i> 'to be' - 3 rd person sing.,		
with 3 rd singular subject:	537	0
with conjunct subject:	33	0
with plural non-pronominal subject:	44	2
<i>bod</i> 'to be' - any other person/number pronominal subject:	276	4
synthetic verbal form - 3 rd person singular,		
with 3 rd singular subject:	51	0
with conjunct subject:	2	0
with plural non-pronominal subject:	2	0
synthetic verbal form - any other person/number pronominal subject:	12	0

By a rather surprising coincidence, 2 heritage speakers exhibited the same divergence from this baseline agreement pattern and while using the same vocabulary. Sentences (26) and (27) are taken from their respective narrative samples (DL4 and DL5). The baseline norm for both of these clauses would begin with *mae*, the third person singular (or elsewhere) form, rather than *maen*, the third person plural form which is only expected to precede the third person plural pronoun.

- (26) ... *maen* *gwenyn* [i]-gyd yn *hedfan* i-fas ...
 be.3pl.PRES bees all PROG fly out
 ... they all [the] bees are flying out ...

- (27) ... maen gwenyn yn dianc o 'r <hive>.
 be.3pl.PRES bees PROG escape from the
 ... they bees are escaping from the hive.

These speakers showed no other divergence from the baseline agreement pattern. Indeed, in all other instances their verbal forms are entirely native-like—the third-person singular form of the verb appears before a third-person plural non-pronominal subject (twice in DL4's narrative and once in DL5's narrative), as well before a coordinate subject (5 times in DL4 and 3 times in DL5). The divergence from baseline norms presented in (26) and (27), then, is not representative of an entirely reanalyzed grammatical system in which number agreement extends to non-pronominal subjects in a non-native-like pattern. Rather, these sentences exemplify the potential for *inconsistency* in the pattern of agreement, a potential result of incomplete acquisition. Some of these speakers' verb forms show native-like agreement, and some do not, and that variability conforms to the baseline norm no more than if the speakers consistently produced non-native agreement.

One of the heritage speakers (DL10) consistently uses the third-person singular present tense form of *bod* 'to be' when preceding a third-person plural pronominal subject—there are 4 identical instances of this disagreement in his sample, suggesting that the third-person plural present tense of *bod* is not part of his grammar. (28) and (29) below, taken from this speaker's sample, are examples of this disagreement. Incidentally, his mastery of agreement in the other person-number combinations is unknown because the third-person singular present of *bod* is the only inflected verbal form in the entirety of his narrative, with the exception of his very first clause, which begins with the first-person singular present form of *bod* (sentence (30) below). Sentences (31) and (32) are examples of the otherwise native-like agreement pattern evident in this speaker's narrative.

- (28) ... a mae hw¹² ffeindio 'r nyth ... (expected verb form: ... *maen nhw*...)
 and be.3sg.PRES [they] find the nest
 ... and [they] find the nest ...
- (29) ... mae hw yn gwlyb iawn ... (expected verb form: ... *maen nhw* ...)
 be.3sg.PRES [they] PRED wet very
 ... [they] are very wet ...
- (30) dydw i ddim yn gwybod pob gair anifeilia[i]d.
 be.1sg.PRES I NEG PROG know each word animals
 I don't know every animals word.
- (31) mae bachgen a ci yn mynd mas.
 be.3sg.PRES boy and dog PROG go out
 A boy and dog are going out.
- (32) mae e 'n trist iawn.
 be.3sg.PRES he PRED sad very
 He is very sad.

Given this speaker's general conformity to the baseline standard, in which person-number markings on the inflected verb agree with a pronominal subject (32) but non-pronominal subjects follow the third-person singular of the verb (31), and given that single instance of a form other than the third-person singular (30), we can assume that the principles of the agreement system and the need to inflect for tense and agreement are present in his grammar. The principal divergence, then, is the lack of the third-person plural form of *bod* and its attendant agreement morphology. This form manifests instead as the third-person singular, which is perhaps the logical result given the default status of the third-person singular which has been discussed above. Recall the predictions from Chapter 1 and the introduction to Part II. Any reanalysis of baseline grammar which manifests in a heritage system must necessarily follow from universal principles

¹² The form of the third-person plural pronoun, 'they,' employed by this heritage speaker is also somewhat divergent from the baseline. *Hw* is recognizable as a sort of hybrid between the colloquial *nhw* and literary *hwy*, but *hw* is not itself a pronoun in the baseline in either a colloquial or literary register.

of language structure and be logical within the grammatical system as constructed in the heritage grammar. The use of the third-person singular present tense of *bod* in place of the third-person plural in clauses where agreement is expected with the third-person plural pronominal subject is a classic example of these principles of heritage language at work. The default, or unmarked elsewhere, third person singular form fills in this gap in the heritage grammar with a minimum of potential confusion for the listener.

A slight digression from the verbal system is worth a short note here. Related to the person and number agreement pattern which was discussed above is the pattern of agreement between numerals and their NP complements. Agreement patterns in Welsh are not limited to the verbal domain, but are a potential location of reanalysis in the heritage grammar which should be completely accounted for before moving on. We have seen that, on the whole, the heritage speakers follow the native-like agreement pattern in producing verb forms (with a few exceptions). The agreement pattern which occurs in baseline Welsh between numerals and their noun complements is not nearly so robust in the heritage grammar. It is consistent and logical within Welsh grammar, in which the pattern of verbal agreement shows person but not number agreement morphology on verbs with non-pronominal subjects, that numerals are always followed by the *singular* form of the noun rather than the plural. Examples (33), (34), and (35) below exemplify the native norm of number (dis)agreement. (These samples are taken from the baseline narratives.)

- (33) dau lyffant (radical form: *llyffant* ‘frog’)
 two SMfrog
 two frogs

- (34) wyth broga arall (radical form: *broga* ‘frog’)
 eight frog other
 eight other frogs
- (35) saith llyffant bach (radical form: *llyffant* ‘frog’)
 seven frog little
 seven little frogs

In each of 12 instances of numerals followed by a noun complement, the baseline speakers conformed to the pattern of numeral+singular noun. This piece of grammar, which is not mirrored in the dominant English system, seems to be incompletely acquired by some of the heritage Welsh speakers, however. There are 8 instances of native-like agreement in the heritage Welsh samples, but 4 of the heritage Welsh speakers (in 5 total instances) broke from the expected pattern. (see (36) through (40) below).

- (36) dau brog-au (DL6)
 two frog-s
- (37) chwech brog-au (DL6)
 six frog-s
- (38) naw ffrog-iau fach (DL11)
 nine frog-s SMlittle
- (39) dau frog-au (DL15)
 two SMfrog-s
- (40) saith llyffant-od (DL16)
 seven frog-s

This agreement pattern, which dictates that the singular noun always follows a numeral, may be entirely absent from the grammars of 3 of the heritage speakers, who produced no native-

like numeral-noun (dis)agreement. The DL11 narrative, however, contained an instance of the native-like pattern of singular noun following the numeral (41) in addition to the non-native-like numeral+plural noun ((38) above).

- | | | |
|------|------------------------------------|--|
| (41) | dau ffrog
two frog
two frogs | (DL11)
(conforms to baseline pattern) |
|------|------------------------------------|--|

Free variation between the native- and non-native-like agreement pattern in this case must also be taken as a sign of the incomplete acquisition of this particular grammatical structure. Inconsistent production and the vacillation between these two patterns in the DL11 heritage grammar is an example of an undetermined intuition about the expected form of a piece of grammar. This uncertainty is as much a sign of incomplete acquisition as is the completely consistent, but non-native, pattern exhibited by the other divergent heritage speakers.

Interestingly, numeral-noun agreement and verb-subject agreement do not seem to be interconnected systems in these heritage grammars. None of the speakers who used the plural noun after a numeral (contra native norms) also diverged from baseline norms in their use of the verbal agreement system. These agreement patterns, therefore, must be discrete elements of the heritage grammar rather than a single connected system in which number-agreement is reserved for pronominal NPs. Rather than positing the acquisition of some language-wide parameter dictating that number agreement morphology only applies with pronouns, and that plural non-pronominal NPs are to be treated as though they are singular (i.e., with the elsewhere/default third-person singular inflected forms), it seems that the system of verbal agreement is acquired independently of the system of numeral-noun agreement. This is supported by the fact that the numeral-noun agreement pattern shows far greater reanalysis in the heritage Welsh samples than the verb-subject agreement pattern.

The baseline numeral pattern, in which the singular form follows any number irrespective of conceptual plurality, is analogous to the verbal system, in which pronouns are uniquely marked to trigger number agreement on the verb, but the third person singular verb appears in all cases elsewhere. The heritage Welsh grammar, on the other hand, either independently extends the semantics of the numeral determiner to a plural NP complement, or (more likely) calques on the English system and reanalyzes the numeral determiner as a plural itself, requiring number agreement on its NP complement (i.e., a plural form like “two frogs”).

7.3 the null subject

Some languages, e.g., Italian and Spanish, which have rich agreement morphology between the verb and its (pronominal) subject, allow that subject to be silent, or “dropped.” These are called null subject or partial “pro-drop” languages because of the presumed activation of the “pro-drop parameter” which enables this process for subject pronouns. (see Chomsky 1981; Haegeman 1994, 450 ff.; Huang 1984) (42) below is an example of a null subject clause in Italian.

- (42) Parlano di linguistica.
 speak.3pl.PRES of linguistics
 They talk about linguistics.
 (sample taken from Sadler 1988, 45)

The Celtic languages, including Welsh, are also pro-drop languages,¹³ (McCloskey and Hale 1983) though the option to use an overt pronoun is also always available. Examples (43) through (45) are taken from the baseline narrative samples.

¹³ Pro-drop is also licensed in Welsh for pronominal objects of verb-nouns if you interpret the pre-clitic pronominal element to be agreement morphology rather than a pronoun itself (see

- (43) Aeth Ø i gysgu.
 go.3sg.PST [NULL] toSM sleep
 [He] went to sleep.
- (44) Dihunodd Ø yn ddisymwth.
 wake.3sg.PST [NULL] ADVSM sudden
 [He] woke up suddenly.
- (45) Mae Ø 'n edrych yn ei sgidiau.
 be.3sg.PRES [NULL] PROG look in his shoes
 [He] is looking in his shoes.

By far the most common realization of pro-drop in Welsh is following the third-person singular form of the verb, particularly the third-person singular present tense of *bod* ‘to be.’ Table 7.3 presents all of the instances of the null subject which were observed in the baseline and heritage Welsh samples. The overwhelming preference for the null subject to follow the third-person singular present of *bod* ‘to be’ in the heritage Welsh samples is not mirrored in the baseline samples. While the baseline speakers are indeed more likely to drop the subject pronoun following the third-person singular present of *bod* than any other verb, their preference is shown to be less pronounced, with a ratio of *bod* to other verb forms slightly below 2 to 1. The heritage speakers, on the other hand, drop the subject pronoun after the third-singular present form of *bod* more than any other verb form at a ratio of nearly 22 to 1. There are only 3 instances of a synthetic form preceding a null subject in the heritage samples, far fewer than the 16 total instances observed in the baseline samples.

Borsley 1984, 285; Borsley et al. 2007, 70-71 and 159-161; Roberts and Shlonsky 1996), and for pronoun objects of inflected prepositions, which also show agreement morphology. In both of these cases, as in the case of the null subject, the pronoun is pragmatically inferable and therefore somewhat redundant. But I will not be discussing these two contexts for pro-drop here, as they are only very minimally represented in the narrative samples.

Table 7.3 Instances of the null subject observed in the baseline and heritage Welsh samples

verb form which is followed by the null subject:	Heritage Speakers		Baseline Speakers	
	total:	speaker average:	total:	speaker average:
<i>bod</i> ‘to be’, present tense - 3 rd person singular	152	7.6	43	2.15
<i>bod</i> ‘to be’, present tense - any person and number combination other than 3 rd person singular	2	0.1	0	0
<i>bod</i> ‘to be’, imperfect tense - 3 rd person singular	2	0.1	4	0.2
<i>bod</i> ‘to be’, imperfect tense - any person and number combination other than 3 rd person singular	0	0	1	0.05
synthetic verb form (i.e., not <i>bod</i> ‘to be’), any tense -3 rd person singular	3	0.15	16	0.8
synthetic verb form (i.e., not <i>bod</i> ‘to be’), any tense -any person and number combination other than 3 rd person singular	0	0	2	0.1

The ease with which the subject may appear as a null element following *mae* ‘he/she is’ (the third-person singular present tense of *bod* ‘to be’) may possibly relate to the expletive-pronoun construction, in which a semantically empty pronoun fills the role of grammatical subject. Examples (46) and (47) below present this option with *mae* (used with a meteorological predicate and an extraposed clausal subject), though other verbs are also accessible to pro-drop, as in (48) below. (46) and (47) are acceptable in the baseline with either the null or overt subject pronoun.

- (46) Mae (hi) 'n bwrw glaw.
 be.3sg.PRES she/it PROG cast rain
 [It] is raining.
- (47) Mae (hi) 'n amlwg bod Mair wedi dod yn-ôl.
 be.3sg.PRES she/it PRED obvious COMP PRF come back
 [It]'s obvious that Mair has come back.
- (48) Synnodd Ø bawb y byddai angen mwy o arian.
 surprise.3sg.PST [NULL]SMeveryone COMP be.3sg.COND need more of money
 [It] surprised everyone that more money was needed.

(examples (46) and (47) taken from Borsley et al. 2007, 61)

The subject in these cases is semantically null anyway, so the ease with which the speaker acquires the parameter permitting the subject to be dropped may be logical. Following this, the extension to other third-person singular pronominal subjects may not be a great leap.

Of greater significance, perhaps, is the fact that the phonetic context of the third-person singular pronouns *e* 'he/it' and *hi* 'she/it' following *mae* is rather conducive to elision—7.6 of the 7.95 instances of pro-drop averaged per heritage speaker narrative (or 96%) appear as *mae 'n*, an easy and allowable shift from *mae e* or *mae hi*. (49) and (50) below are examples of this elision found in the baseline narratives. The null subject in both these instances (Ø) could be expressed overtly with *e* 'he/it,' but rapid pronunciation almost guarantees that the /e/ phoneme of the pronoun be absorbed or obscured by the diphthong /ai/ of the preceding verb. That such a high percentage of the heritage speakers' use of the null subject also occur under these conditions is, therefore, no surprise.

- (49) Mae Ø 'n sylweddoli bod y llyffant wedi mynd.
 be.3sg.PRES [NULL] PROG realize COMP the frog PRF go
 [He] realizes that the frog has gone.

- (50) Mae Ø 'n amwlg mai hyn yw brodyr a chwiorydd broga Ifan.
 be.3sg.PRES [NULL] PRED obvious COMP this COP brothers and sisters frog
 [It]'s obvious that this is the brothers and sisters of Ifan's frog.

Because of the phonetic inducement to pro-drop in present tense *bod*-periphrasis, the pro-drop parameter is better tested in the heritage Welsh samples by the appearance of the null subject with inflected verbs other than *bod*. Unfortunately, the representation of this phenomenon in the heritage samples is quite weak indeed. The baseline samples show that the native speakers are generally quite at ease with a null subject after verbs other than *bod* (0.8 instances on average per speaker), but the heritage speakers only dropped the pronominal subject after a total of 3 synthetic forms in the entire corpus. This observation is, as others before have been, of course, predicated on the narrative decisions of the informants, who may well be *choosing* to use the present tense and thus not given the chance to prove their mastery of the pro-drop parameter. But after having concluded above that those decisions are themselves significant, I would preliminarily propose that the heritage speakers, having failed to show mastery to the baseline level, have most likely incompletely acquired the pro-drop parameter which permits the null subject to be an available option across all verbs and tenses.

I would like to conclude this discussion of the heritage Welsh verbal system with a brief summary of the divergences from the baseline which have been discussed in the preceding sections. In line with expectations set by Chapter 1 and my discussion of the typical characteristics of heritage language, the variety of tense inflections available to the heritage speaker is reduced from baseline norms. The preference for *bod*-periphrasis and its limited necessary inventory of clause-initial verb forms is very pronounced in the heritage grammar. In these preferred auxiliary constructions, the aspectual particles serve as the principal markers of

tense, albeit within a much reduced inventory of available tenses. Present progressive forms appear in the heritage grammar as the principal means of communicating the present tense, as is also the norm in the baseline, but present perfective forms have been extended to carry a past tense meaning in replacement of the synthetic past tense forms which are normally employed in the baseline.

Agreement morphology on verb forms in the heritage grammar is not greatly divergent from the baseline (though a few samples do demonstrate reduced mastery of this piece of grammar). The consistent use of native-like verbal agreement, however, may have as much to do with the fact that the heritage speakers are employing a much smaller set of verbs as it does to any firmly acquired requirement for agreement morphology. In primarily using a small subset of all possible inflected verbs (primarily forms of *bod* ‘to be’), the heritage speakers are not constructing new verbal forms with their expected agreement morphology in each clause, so much as reproducing one of a handful of memorized forms. The numeral-noun agreement pattern (in which the singular noun follows any numeral) has been shown to be a separate system of agreement which is acquired (or not) entirely independently from the verbal agreement pattern. Finally, the construction of null subject clauses by the heritage speakers has been seen to be more a product of phonological convenience, and thus nearly exclusively represented in present tense *bod*-periphrasis, than a sign of the complete acquisition of the pro-drop parameter and the null subject option.

III. *Conclusions*

This dissertation not only brings the framework and terminology of the heritage language construct to the Welsh language context, but also contributes to the growing body of research on heritage grammars as informants of human language capacity. After reduced exposure and removal from the language community, the heritage Welsh speakers exhibit grammatical patterns which indicate a reanalysis of the linguistic system within a logical framework. The preference for analytical over synthetic verb forms conforms to the expectations laid out in Chapter 1, which follow from previous research with heritage speakers of other languages. These forms are pragmatically marked and slightly semantically extended to compensate for the absent synthetic forms, but they are grammatically consistent within even the baseline language. The heritage system still makes sense despite its (sometimes great) reduction from baseline norms.

The reduction of grammatical gender (marked with SM) and the mutations which signal syntactic relations (also SM) seems to indicate that simplification in the system is determined by the functional load of individual grammatical forms. The mutations which are maintained facilitate disambiguation, and thus successful communication. The relative frequencies of the different types of mutations play far less a role in whether the form is maintained than the mutation's functional load, supporting the current trend of questioning the informative capacity of frequency in acquisition studies. (cf. Chapter 3) The functional load of the form, whether it be a marker of gender, syntactic relation, or lexical in nature, is the primary motivator within these heritage Welsh samples of the retention of baseline-like mutation patterns. The salience of mutations whose roles are not so immediately apparent in natural speech are apparently less likely to be perceived, and thus acquired and/or maintained, by the heritage speaker.

These observations are necessary for an understanding of the range of Welsh proficiencies which are commanded by speakers today, in Wales and abroad, but they also contribute to the general description of the “heritage grammar” crosslinguistically. The patterns which are shared by speakers of different languages are informative of the common core of linguistic form and strategy available to the human faculty for generating language. The greater the number and typological variety of languages that are studied in their heritage form, the more thorough our description of heritage language and grammatical reanalysis will become. The creation of the corpus of heritage Welsh narratives (Appendix II.1), even beyond its analysis in this dissertation, is a valuable contribution to this developing description. It is a new resource, in which there remain many more interesting observations than I have had the space to describe in this dissertation.

This project is only the beginning of a complete description of heritage Welsh, but it is an informative beginning nonetheless. Heritage language was itself defined and described in the discussions of Part I, and, following from previous research on the form of heritage languages crosslinguistically, predictions were made about where the potential locations for divergence from baseline norms may be found in heritage Welsh grammar. Linguistic information stored in declarative memory, such as vocabulary, as well as structures which involve interaction between the syntax and other components of the grammar at interfaces, have been found to be particularly vulnerable in the heritage grammars of other languages, and so were predicted to be sources of divergence in heritage Welsh as well. Vocabulary recall difficulty was clearly evident in the analysis of heritage Welsh fluency in Chapter 5, but work remains to be done which specifically targets the manifestation of syntax which has passed through the interfaces with pragmatics or semantics, for example. The next step in this research agenda is to formulate such targeted studies which investigate not only this possible interface effect, but also further analyze the phenomena observed in this study. The semantics of the perfective *bod*-periphrastic form in heritage Welsh as

opposed to baseline Welsh is a topic which particularly warrants further investigation along these lines. Chapter 7 discussed the heritage speaker preference for analytic over synthetic verb formation, but whether that has to do with a true divergence from baseline norms in the semantics of these verbal constructions or simply due to speaker choice is a question that may be answered with more targeted research. The syntax of heritage Welsh is clearly divergent from the baseline, but I hesitate to claim an interface effect without further investigation.

Through careful analysis of the corpus compiled in the course of this research, several observations have been made which suggest that the heritage Welsh grammar is shaped more by independent simplification than by interference from the dominant language of the informants, i.e., English. Chapters 6 and 7 particularly analyzed the heritage Welsh versions of the initial consonant mutation (ICM) system, the alternation of synthetic and periphrastic verb forms, the option of a null subject, and agreement, which were each also discussed as they appear in baseline Welsh. Under the conditions of incomplete acquisition and attrition, the resulting heritage grammar manifests much reduced ICM, though maintains mutation effects when they provide salient or disambiguating information. The availability of the null subject is evinced only very minimally and predominantly in instances induced by phonetics (elision). Subject-verb agreement was found to be largely native-like, but numeral-noun agreement diverges. The conceptual plurality of the numeral has been extended to co-occur with the plural noun, contra baseline norms and possibly as a result of transfer from English. The predominance of analytical, *bod*-periphrastic verb forms over synthetic verb forms may also be seen as a possible source of interference from English. The aspectual marker and verb-noun occurs between the subject and complement, and thus the construction more closely approximates the English SVO word order than does the native Welsh VSO word order. However, the preference for periphrasis more likely results from the reduced processing load of splitting the salient components of the verb structure into distinct lexemes—the tense and agreement on a sentence-initial form of *bod* ‘to be,’ followed

by the subject, and only subsequently by the aspectual marker and lexical verb (the non-finite verb-noun). The interference of English is less likely to be responsible for the heritage Welsh rate of periphrasis than is an independent pattern of simplification in incomplete grammatical systems.

As was discussed in Chapter 4, the bilingual continuum incorporates the range of bilingual speakers from nearly evenly balanced to dramatically unbalanced, and this includes heritage speakers and their variable abilities as well. The continuum as a metaphor of language ability within a population is particularly apt because it does not necessarily entail a single linear progression from one end to the other, nor need it imply parallel tracks between the two poles. The expanse between the two extremes is not so much a single line, with predictable skill milestones along the way, as a plane, encapsulating a range of proficiencies in the different components of the grammar, with each speaker's grammar influenced by her own linguistic experiences. The heritage speaker and the adult second language learner do not need to have the same skills to both be considered bilinguals, nor do the 20 heritage speakers of Welsh who participated in this project speak precisely the same heritage language. They each produced their own version of heritage Welsh, with their own strengths and weaknesses—but there are broad patterns that justify their categorization as a unified sub-group of bilinguals as well. (cf. Chapter 1) This category of bilingual, the heritage speaker of Welsh, has been overlooked far too long both in the field of Welsh linguistics and in Welsh language policy.

The heritage speakers of this study belong to a particular profile—expatriates in England, each with some kind of dramatic curtailment of exposure to Welsh during childhood—but the fundamental conditions under which a heritage, as opposed to a full native, grammar develops are mirrored in Wales as well. The acquisition of Welsh in Wales is not a typical first language acquisition process either. The historical influence of English has resulted in an entirely bilingual baseline population. It has been established that bilingual acquirers are naturally receiving less linguistic input per language in childhood than their monolingual counterparts, but the imbalance

does not result in lingering deficiencies in the developing grammar. (cf. Chapter 4) For successful bilingual acquisition, both languages reach the critical mass necessary for complete development and successful maintenance. Recent gains in the Welsh language movement notwithstanding, including increasing exposure to Welsh in the linguistic landscape,¹ the efforts of even the most committed parents to raise their child bilingually may be insufficient in the face of an Anglophone social circle and avid engagement with English language media. In the areas of Wales which are not strongholds of the language, i.e., the majority, childhood exposure to Welsh is inevitably reduced below optimal levels for complete and successful acquisition. By analyzing the outcome of indisputably heritage language acquisition, as does this dissertation, signs of simplification and divergence from expected norms in the Welsh spoken by children in Wales can be identified as results of insufficient exposure as well. The single heritage speaker label, in this case, belies the breadth of speaker profiles which may result in Welsh grammars which are similarly divergent from the baseline.

Further research with heritage Welsh could take the form of the targeted studies I discussed above, but might also take advantage of the great number of childhood second language learners of Welsh in the school system. By mandate of the National Curriculum, children in Wales are exposed to Welsh language instruction in the formal education system through age 16. (Welsh Assembly Government 2008) Those children who do not come from Welsh language home backgrounds begin their acquisition process, however successful it may ultimately be, well into childhood. Any differences between the proficiency outcomes of heritage speaker immigrants and these young second language learners can fairly firmly be attributed to the

¹ The “notion ‘linguistic landscape,’ which refers to linguistic objects that mark the public space, i.e., inscriptions—or LL items—includes any written signs found outside private homes, from road signs to names of streets, shops, and schools. The study of LLs focuses on analyzing these items according to the languages utilized, their relative saliency, syntactic or semantic aspects. These language facts which landmark the public space are social facts that, as such, relate to more general social phenomena.” (Ben-Rafael et al. 2010, xiv)

difference in very early exposure. The critical, or, perhaps less controversially, “optimal” period for the acquisition of certain components of the grammar can be tested by a comparison of these two populations. The development of phonology would be a particularly informative comparison. (cf. Chapter 2)

The status of the language in Wales, while certainly more securely established than Irish in Ireland or Scottish Gaelic in Scotland, is still that of a minority language. UNESCO’s *Atlas of the World’s Languages in Danger* categorizes Welsh as “vulnerable.” (UNESCO 2014) As a result of this status, heritage Welsh has existed as a distinctly inevitable language outcome as long as English language culture has permeated Wales. Unfortunately, however, as per the typical heritage speaker profile, heritage Welsh speakers are not certain to assert their ownership over the language as members of its speaker community. Falling short of native norms, in their estimation, heritage speakers do not always feel entitled to inclusion within the Welsh language community. Without deliberate maintenance of the language proficiency that they do have, which may often be met by unenthusiastic interlocutors, the heritage language suffers further attrition and thus reinforces the speaker’s unwillingness to use Welsh. Should awareness of the heritage language phenomenon become widespread within Wales, heritage speakers may be able to take greater agency in their own identification as speakers, a privilege of the heritage speaker label as was discussed in Chapter 1.

The study of heritage language, if nothing else, provides a framework within which to discuss a type of speaker who has formerly been labeled “semi-speaker” (cf. Dorian 1977; Dorian 1980; Knowles-Berry 1987) or “imperfect speaker” (cf. Dorian 1982) in the literature. The implicit negativity of these labels naturally discourages these speakers from feeling that they are part of the speaker community. As “heritage speakers,” the linguistic profile is refocused on the cultural connection between an individual and her heritage language, not on her failure to successfully acquire the language. In the context of minority, vulnerable, or endangered

languages, that perceived failure can be accompanied by a sense of shame or guilt for not having contributed to saving the language, or possibly even for contributing to its obsolescence. This is simply an unreasonable burden to place on the shoulders of these speakers. Language shift is an individual experience first, and only secondarily does the phenomenon affect the community as a whole. Heritage language is a far more productive term for the resulting grammar of an incomplete acquirer of a minority language or for the grammar of a speaker after years of attrition from disuse. Careful analysis of the heritage language certainly reveals divergences from the baseline language, but also recognizes those aspects of the grammar which are native-like or utilizable strengths and which also characterize the heritage speaker's language knowledge.

The implications of an exclusionary mentality in the speaker community reverberate even as far as any official count of Welsh language use. The potential exclusion of heritage speakers in counts of total Welsh speakers is, I believe, a preventable mistake with rather extensive consequences. Not only does the UK Census intentionally omit the Welsh language question on questionnaires distributed outside of Wales,² thus eliminating the potential to count both fully proficient and heritage speakers in England, but the phrasing of the Welsh question in Wales may incline the speaker population to under-report. Heritage Speakers, as I discussed in Chapter 1, likely make up a significant proportion of the categories who report that they “understand spoken Welsh” and “speak Welsh” (but report no literacy abilities). Heritage speakers may also tick the box for “read Welsh.” The unfortunate, though necessary, brevity of these category descriptions on the questionnaire form almost certainly lead to some amount of confusion for the respondents. The question “can you understand Welsh,” for example, may be interpreted as “can you understand *all* spoken Welsh,” particularly by a heritage speaker who is generally inclined to

² Question 17 of 2011 Census for Wales reads “Can you understand, speak, read or write Welsh? Tick all that apply” then lists “understand spoken Welsh,” “speak Welsh,” “read Welsh,” “write Welsh,” and “none of the above.” The questionnaires distributed in England have no question 17, instead the box numbered 17 contains “This question is intentionally left blank. Go to 18.” (Office for National Statistics 2011a; Office for National Statistics 2011b)

undervalue her language abilities. Consequently, language abilities are very likely being underreported on the official Census. This is not an easily solved problem, however, and the constructors of the Census forms are certainly not at fault, but the heritage speaker profile and its attendant lack of confidence are not conducive to accurate self-reporting.

Children who are learning Welsh as part of the school curriculum are known to be reporting (or their parents are reporting) their abilities on the Census. This accounts for the much discussed school-age bubble in speaker age demographics, and may actually be an example of the opposite problem of what I have been discussing here—the potential for parents to *over-report* their children’s proficiencies. (Morris 2010) I take no issue, however, with the inclusion of these second language learners in official accounts of the health of the language. But if imbalanced bilinguals in the form of second language learners are to be included as speakers, then so should heritage speakers, and finding a way to accurately account for these speakers in Wales (let alone the rest of the UK) is an ongoing challenge for the language movement.

The Welsh Language Use Surveys, commissioned by the Welsh government (the Welsh Language Board, and later the Welsh Language Commissioner), attempt to compensate for the inadequacy of the UK Census itself. The survey project that will build on the results of the 2011 Census is ongoing (2013-2015),³ but the 2004-2006 project yielded some very useful results indeed. With its targeted questions and random sampling methodology, the 2004 report estimated that there was a greater Welsh speaking population in 2004 than what the 2001 Census reported—21.7% rather than 20.8% of those living in Wales. Of these 611,000 speakers, 57%

³ Information can be found at <http://wales.gov.uk/statistics-and-research/nationals-survey/content-and-materials/welsh-language-use-survey-2013-2015/?lang=en>

(315,000) actually considered themselves fluent.⁴ (Welsh Language Board 2006, 6) It must be presumed, then, that the other 296,000 speakers fall somewhere towards the imbalanced end of the bilingual continuum (cf. Chapter 4) and include heritage speakers. Indeed, 22% of the Welsh speakers who reported that they were not fluent also reported that they had learned Welsh at home (Welsh Language Board 2006, 23)—and thus have we located heritage speakers inside Wales. The ability to account for them is therefore already established, but these surveys have yet to be refined for the innumerable variables of the heritage speaker profile. Even more importantly, this survey of Welsh speakers has not yet been extended to England, where so many of these heritage speakers live.

Having now defined and described what heritage Welsh and the heritage speaker are, fully integrating these speakers into the Welsh language community may be the next, and perhaps most productive, effort toward promoting the language. The heritage speaker does, after all, have some degree of proficiency already, so unlike efforts to convince parents to raise their children bilingually or to encourage adults to learn the language, these speakers already have some of the language abilities that the Welsh Assembly Government is seeking to count. To fully recognize those abilities may amount to an immediate, and significant, increase in total speaker numbers, and maintaining the border between Wales and England as a valid limit on the extent of the Welsh language should now be recognized as illogical.

In the context of Scottish and Irish Gaelic, languages deemed “definitely endangered” by the UNESCO *Atlas of the World’s Languages in Danger* (UNESCO 2014), Watson (1989) tries to reconcile the conflicting criteria for membership in speaker communities of minority languages.

⁴ This is not “fluent” as the term was discussed at great length in Chapter 5, but rather the casual use of the word. It may be loosely interpreted as “proficient,” though this imprecision may be considered problematic for the utility of these surveys.

“When a language has been in retreat for a long time and its distribution has been shrinking at the same time that its functions have been dwindling, difficulties are very likely to arise in even such basic matters as determining just who should be considered a “speaker” or a “member” of the speaker community. The “native speaker” population itself may not agree on who falls within that category: some people may claim speaker status when others would not include them as speakers. If the speaker population cannot agree on its own membership, then the problems for the researcher are bound to be even more acute.” (Watson 1989, 41)

A basic count of Welsh speakers should be a complete report of all language abilities in the community, not a figure that focuses on full proficiency and Welsh residency. An agenda which privileges certain bilinguals over others is not going to secure the Welsh language for future generations. Limitations on who may or may not consider themselves valid Welsh speakers, however unintentional or unconscious, is as egregious a discrimination as the British policies which led to the minority status of the language in the first place. Bringing this category of bilinguals into the fold of Welsh speakers could be a major turnaround for the language. The reasons for their curtailed acquisition process may be related to official prejudices against the language in childhood or to subtler pressures to assimilate to English language culture, but, ironically, the continued exclusion of this group from their cultural inheritance is an injustice which has emerged from within the movement to promote Welsh in Wales. The recognition of a clear category of speakers who are neither full native speakers nor non-speakers altogether—i.e., heritage speakers—is a significant step toward resolving this issue, not only for the language researcher but also for the language maintenance movement.

Works Cited

- Alliance for the Advancement of Heritage Languages. 2010. *Heritage Languages in America*. Center For Applied Linguistics. <http://www.cal.org/heritage/pdfs/heritage-flyer-June-2010.pdf>
- Asher, James, and Ramiro García. 1969. "The optimal age to learn a foreign language." *Modern Language Journal* 53: 334-341.
- Au, Rhoda, Philip Joung, Marjorie Nicholas, Loraine K. Obler, Robin Kass, and Martin L. Albert. 1995. "Naming ability across the adult life span." *Aging, Neuropsychology, and Cognition* 2: 4: 300-311.
- Au, Terry Kit-fong, Janet S. Oh, Leah M. Knightly, Sun-Ah Jun, Laura F. Romo. 2008. "Salvaging a Childhood Language." *Journal of Memory and Language* 58: 998-1011.
- Au, Terry Kit-fong, and Janet S. Oh. 2009. "Korean as a Heritage Language." in *Handbook of East Asian Psycholinguistics*. edited by P. Li, et al. 268-275. London: Cambridge University Press.
- Austin, Jennifer. 2009. "Delay, interference and bilingual development: The acquisition of verbal morphology in children learning Basque and Spanish." *International Journal of Bilingualism* 13: 4: 447-479.
- Awbery, G. M. 1976. *The Syntax of Welsh: A Transformational Study of the Passive*. Cambridge, UK: Cambridge University Press.
- Ball, Martin J., and Nicole Müller. 1992. *Mutation in Welsh*. London: Routledge.
- Beaudrie, Sara and Cynthia Ducar. 2005. "Beginning Level University Heritage Programs: Creating a Space for All Heritage Language Learners." *Heritage Language Journal* 3:1: 1-26.
- Ben-Rafael, Eliezer, Elana Shohamy, and Monica Barni. 2010. "Introduction: An approach to an 'Ordered Disorder'." In *Linguistic Landscape in the City*, edited by Elana Shohamy, Eliezer Ben-Rafael, and Monica Barni, xi-xxviii. Tonawanda, NY: Multilingual Matters.
- Ben-Rafael, Miriam, and Monika S. Schmid. 2007. "Language attrition and ideology: Two groups of immigrants in Israel." In *Language Attrition: Theoretical Perspectives*, edited by Barbara Köpke, Monika S. Schmid, Merel Keijzer, and Susan Dostert, 205-226. Amsterdam: John Benjamins.
- Ben-Zeev, Sandra. 1977. "The influence of bilingualism on cognitive strategy and cognitive development." *Child Development* 48: 1009-1018.
- Berman, Ruth A., and Dan I. Slobin. 1994. *Relating Events in Narrative: a crosslinguistic developmental study*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bialystok, Ellen. 1997. "The structure of age: In search of barriers to second language acquisition." *Second Language Research* 3: 116-137.
- Bialystok, Ellen, Fergus I. M. Craik, and Morris Freedman. 2007. "Bilingualism as a protection against the onset of symptoms of dementia." *Neuropsychologia* 45: 2: 459-464.

- Bialystok, Ellen, Michelle M. Martin and Mythili Viswanathan. 2005. "Bilingualism across the lifespan: The rise and fall of inhibitory control." *International Journal of Bilingualism* 9: 1: 103-119.
- Bley-Vroman, Robert. 1989. "The logical problem of second language learning." In *Linguistic Perspectives on Second Language Acquisition*, edited by S. Gass and J. Schachter, 41-68. Cambridge: Cambridge University Press.
- Bolger, Patrick A. and Gabriela C. Zapata. 2011. "Psycholinguistic Approaches to Language Processing in Heritage Speakers." *Heritage Language Journal* 8: 1: 1-29.
- Bolonyai, Agnes. 2007. "(In)vulnerable agreement in incomplete bilingual learners." *International Journal of Bilingualism* 11: 1: 3-23.
- Boon, Erin. 2014. "Heritage Welsh." The Polinsky Language Sciences Lab Dataverse. <http://thedata.harvard.edu/dvn/dv/polinsky>. accessed April 4, 2014.
- Borer, Hagit. 1996. "Access to Universal Grammar: the real issues." *Brain and Behavioral Sciences* 19: 4: 718-720.
- Borsley, Robert D. 1984. "VP complements: Evidence from Welsh." *Journal of Linguistics* 20: 2: 277-302.
- . 1989. "An HPSG Approach to Welsh." *Journal of Linguistics* 25: 333-354.
- . 1993. "On So-Called 'Verb-Nouns' in Welsh." *Journal of Celtic Linguistics* 2: 35-64.
- . 1997. "Mutation and Case in Welsh." *Canadian Journal of Linguistics* 42: 1-2: 31-56.
- . 1999. "Mutation and Constituent Structure in Welsh." *Lingua* 109: 267-300.
- . 2009. "On the superficiality of Welsh agreement." *Natural Language and Linguistic Theory* 27: 225-265.
- Borsley, Robert D, and Maggie Tallerman. 1996. "Phrases and Soft Mutation in Welsh." *Journal of Celtic Linguistics* 5: 1-49.
- Borsley, Robert D., Maggie Tallerman, and David Willis. 2007. *The Syntax of Welsh*. Cambridge, UK: Cambridge University Press.
- Bowles, Melissa A. 2011. "Exploring the Role of Modality: L2-Heritage Learner Interactions in the Spanish Language Classroom." *Heritage Language Journal* 8: 1: 30-65.
- Brandl, Klaus. 2008. *Communicative Language Teaching in Action*. Upper Saddle River, NJ: Pearson, Prentice Hall.
- Burke, Deborah M., Donald G. MacKay, Joanna S. Worthley, and Elizabeth Wade. 1991. "On the tip of the tongue: what causes word finding failure in young and older adults?" *Journal of Memory and Language* 30: 542-579.

- Carnie, Andrew, and Eithne Guilfoyle. 2000. "Introduction." *The Syntax of Verb Initial Languages*. Oxford, UK: Oxford University Press.
- Carreira, Maria. 2004. "Seeking Explanatory Adequacy: A Dual Approach to Understanding the Term "Heritage Language Learner."" *Heritage Language Journal* 2: 1-25.
- Celata, Chiara, and Jessica Cancila. 2010. "Phonological attrition and the perception of geminate consonants in the Lucchese community of San Francisco (CA)." *International Journal of Bilingualism*. 14: 2: 185-209.
- Commissioners of Inquiry into the State of Education in Wales. 1848. *Reports of the Commissioners of Inquiry into the State of Education in Wales, appointed by the Committee of Council on Education*. London: William Clowes and Sons.
- Chambers, Francine. 1997. "What do we mean by fluency?" *System* 25: 4: 535-544.
- Chee, Michael W. L., Edsel W. L. Tan, and Thorsten Thiel. 1999. "Mandarin and English Single Word Processing Studies with Functional Magnetic Resonance Imaging." *The Journal of Neuroscience* 19: 8: 3050-3056.
- Chomsky, Noam. 1965. *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Press.
- . 1966. *Cartesian Linguistics: a chapter in the history of rationalist thought*. New York, NY: Harper & Row.
- . 1981. *Lectures on Government and Binding*. Dordrecht, Netherlands: Foris.
- . 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Comrie, Bernard. 1989. *Language Universals and Linguistic Typology*, second edition. Chicago, IL: University of Chicago Press.
- Cook, Vivian J. 1992. "Evidence for multicompetence." *Language Learning* 42: 4: 557-591.
- Craik, Fergus, I. M., Ellen Bialystok, and Morris Freedman. 2010. "Delaying the onset of Alzheimer disease." *Neurology* 75: 19: 1726-1730.
- Cummins, James. 1979. "Linguistic interdependence and the educational development of bilingual children." *Review of Educational Research* 49: 2: 222-251.
- . 1981. "Age on arrival and immigrant second language learning in Canada: A reassessment." *Applied Linguistics* 2: 132-149.
- . 1984. *Bilingualism and Special Education: Issues in Assessment and Pedagogy*. Clevedon: Multilingual Matters.
- Cuza, Alejandro, and Joshua Frank. 2011. "Transfer Effects at the Syntax-Semantics Interface: The Case of Double-*que* Questions in Heritage Spanish." *Heritage Language Journal* 8: 1: 66-89.
- Cymry Llundain/London Welsh. 2014. "About." Accessed April 4, 2014.
<http://www.londonwelsh.org/about-us>

Davies, Gwilym Prys. 2000. "The legal status of the Welsh language in the twentieth century." In *'Let's Do Our Best For the Ancient Tongue': The Welsh Language in the Twentieth Century*, edited by Geraint H. Jenkins and Mari A. Williams, 217-248. Cardiff, Wales: University of Wales Press.

De Boysson-Bardies, B., L. Sagart, and C Durand. 1984. "Discernable differences in the babbling of infants according to target languages." *Journal of Child Language* 11: 1: 1-15.

Dehaene, Stanislas, Emmanuel Dupoux, Jacques Mehler, Laurent Cohen, Eraldo Paulesu, Daniela Perani, Pierre-Francois van de Moortele, Stéphane Lehericy, and Denis Le Bihan. 1997. "Anatomical variability in the cortical representations of first and second language." *Neuroreport* 8: 3809-3815.

De Houwer, Annick, Marc H. Bornstein, and Sandrine De Coster. 2006. "Early understanding of two words for the same thing: A CDI study of lexical comprehension in infant bilinguals." *International Journal of Bilingualism* 10: 3: 331-347.

De Leeuw, Esther, Ineke Mennen, and James M. Scobbie. 2011. "Singing a different tune in your native language: first language attrition of prosody." *International Journal of Bilingualism* 16: 1: 101-116.

Djurkovic, Milja. 2007. "Structural versus frequency effects in L1 acquisition of the passive and impersonal in Serbian." In *Frequency Effects in Language Acquisition: defining the limits of frequency as an explanatory concept*, edited by Insa Gülzow and Natalia Gagarina, 237-270. Berlin, Germany: Mouton de Gruyter.

Dorian, Nancy. 1976. "Gender in a terminal Gaelic dialect." *Scottish Gaelic Studies* 12/13: 279-282.

———. 1977. "The problem of the semi-speaker in language death." *International Journal of the Sociology of Language* 12: 23-32.

———. 1978. "Fate of morphological complexity in language death: Evidence from East Sutherland Gaelic." *Language* 54: 3: 590-609.

———. 1980. "Language shift in the community and individual: The phenomenon of the laggard semi-speaker." *International Journal of the Sociology of Language* 25: 85-94.

———. 1982. "Language loss and maintenance in language contact situations." in *The Loss of Language Skills*, edited by Richard D. Lambert and Barbara F. Freed, 44-59. Rowley, MA: Newbury House.

Douglas, Masako O. 2008. "A Profile of Japanese Heritage Learners and Individualized Curriculum." *Heritage Language Education: A New Field Emerging*. eds. Donna M. Brinton, Olga Kagan and Susan Bauckus. 215-226. New York: Routledge.

Ecke, Peter. 2004. "Language attrition and theories of forgetting: a cross-disciplinary review." *International Journal of Bilingualism* 8: 3: 321-354.

Eimas, Peter D, Einar R. Siqueland, Peter Jusczyk, and James Vigorito. 1971. "Speech perception in infants." *Science* 171: 3968: 303-306.

- Fathman, A, and L Precup. 1983. "Influences of age and setting on second language oral proficiency." In *Second Language Acquisition Studies*, edited by K. Bailey, M. Long, and S. Peck, 151-161. Rowley, MA: Newbury House.
- Feofanov, M. 1960. "Oshibki v postroenii predlozhenii kak pokazatel" stepeni usvoeniya grammaticheskogo stroya yazyka (Errors in sentence construction as an indicator of the degree of mastery of the grammatical structure of the language)." *Doklady Akad. Pedag. Nauk RSFRI*, 37-38.
- Fishman, Joshua A. 2001. "300-Plus Years of Heritage Language Education in the United States." in *Heritage Languages in America: Preserving a National Resource*. edited by Joy Kreeft Peyton, Donald A. Ranard, and Scott McGinnis. 81-97. Washington, DC: Delta Systems and McHenry, IL: Center for Applied Linguistics.
- Flege, James Emil. 1981. "The phonological basis of foreign accent: A hypothesis." *TESOL Quarterly* 15: 443-455.
- . 1987. "Effects of equivalence classification on the production of foreign language speech sounds." in *Sound Patterns in Second Language Acquisition*, edited by A. James and J. Leather, 9-39. Dordrecht: Foris.
- Flege, James Emil, Grace H. Yeni-Komshian, and Serena Liu. 1999. "Age Constraints on Second-Language Acquisition." *Journal of Memory and Language* 41: 78-104.
- Foursha-Stevenson, Cassandra, and Elena Nicoladis. 2011. "Early emergence of syntactic awareness and cross-linguistics influence in bilingual children's judgments." *International Journal of Bilingualism* 15: 4: 521-534.
- Fromm, E. 1970. "Age regression with unexpected reappearance of repressed childhood language." *International Journal of Clinical and Experimental Hypnosis* 18: 79-88.
- Gabriele, Alison, and Alonso Canales. 2011. "No time like the *present*: Examining transfer at the interfaces in second language acquisition." *Lingua* 121: 670-687.
- Gass, Susan M. and Larry Selinker. 2008. *Second Language Acquisition: An Introductory Course*, third edition. London: Routledge.
- Gathercole, Virginia C. Mueller. 2002. "Grammatical Gender in Bilingual and Monolingual Children: A Spanish Morphosyntactic Distinction." in *Language and Literacy in Bilingual Children*. edited by D. Kimbrough Oller and Rebecca E. Eilers. Clevedon: Multilingual Matters. pp. 207-219.
- Gathercole, Virginia C. Mueller, and Erika Hoff. 2009. "Input and the acquisition of language: Three questions." in *Blackwell Handbook of Language*, edited by Erika Hoff and Marilyn Shatz, 107-127. Oxford: Wiley-Blackwell.
- Genesee, Fred, and Elena Nicoladis. 2009. "Bilingual first language acquisition." in *Blackwell Handbook of Language Development*, edited by Erika Hoff and Marilyn Shatz, 324-342. Oxford: Wiley-Blackwell.
- Goddard, Henry H. 1917. "Mental tests and the immigrant." *Journal of Delinquency* 2: 5: 243-277.

- Goral, Mira. 2004. "First-language decline in healthy aging: implications for attrition in bilingualism." *Journal of Neurolinguistics* 17: 31-52.
- Greenberg, Joseph H, editor. 1963. *Universals of Language*, second edition. Cambridge: MIT Press.
- . 1966. *Language Universals, with special reference to feature hierarchies*. Berlin: Mouton de Gruyter.
- Griffiths, Merfyn. ed. 1986. *The Welsh language in Education: a volume of essays*. Cardiff: Cyd-Bwyllgor Addysg Cymru.
- . ed. 1997. *The Welsh Language in Education 2: a volume of essays*. Cardiff: Cyd-Bwyllgor Addysg Cymru.
- Grosjean, François. 2008. *Studying Bilinguals*. Oxford: Oxford University Press.
- . 2010. *Bilingual: Life and Reality*. Cambridge, MA: Harvard University Press.
- Guilford, J. P. 1967. *The Nature of Human Intelligence*. New York: McGraw-Hill.
- Guilfoyle, Eithne. 2012a. "Bilingualism, reduced input and language change: the case of Modern Irish." Invited talk in the Department of Linguistics / Department of Celtic Languages and Literatures, Harvard University, Cambridge MA. April 17, 2012.
- . 2012b. "Bilingualism, reduced input and language change: the case of Modern Irish." Invited talk in the Department of Linguistics, McGill University, Montreal, Canada. May 15, 2012.
- Haegeman, Liliane. 1994. *Introduction to Government and Binding Theory*, second edition. Malden, MA: Blackwell Publishing.
- Hakuta, Kenji. 1987. "Degree of bilingualism and cognitive ability in mainland Puerto Rican children." *Child Development* 58: 1372-1388.
- Hakuta, Kenji, Ellen Bialystok, and Edward Wiley. 2003. "Critical evidence: A test of the Critical Period Hypothesis for second-language acquisition." *Psychological Science* 14: 1: 31-38.
- Harlow, Steve. 1989. "The Syntax of Welsh Soft Mutation." *Natural Language and Linguistic Theory* 7: 3: 289-316.
- Herdina, Philip, and Ulrike Jessner. 2002. *A Dynamic Model of Multilingualism: Perspectives of Change in Psycholinguistics*. Clevedon: Multilingual Matters Ltd.
- Hornberger, Nancy H. and Shuhan C. Wang. 2008. "Who Are Our Heritage Language Learners? : Identity and Biliteracy in Heritage Language Education in the United States." in *Heritage Language Education: A New Field Emerging*. edited by Donna M. Brinton, Olga Kagan and Susan Bauckus, 3 - 35. New York, NY: Routledge.
- Huang, C-T James. 1984. "On the distribution and reference of empty pronouns." *Linguistic Inquiry* 15: 4: 531-574.

- Hutz, Matthias. 2004. "Is there a natural process of decay? A longitudinal study of language attrition." In *First Language Attrition: Interdisciplinary Perspectives on Methodological Issues*, edited by Monika S. Schmid, Barbara Köpke, Merel Keijzer, and Lina Weilemar, 189-206. Amsterdam: John Benjamins.
- Ianco-Worrall, A. 1972. "Bilingualism and cognitive development." *Child Development* 43: 4: 1390-1400.
- Jenkins, Geraint H., and Mari A. Williams. eds. 2000. *Let's Do Our Best For the Ancient Tongue: the Welsh Language in the Twentieth Century*. Cardiff: University of Wales Press.
- Jespersen, O. 1922. *Language: Its Nature, Development and Origin*. London: George Allen and Unwin.
- Jia, Gisela, and Doris Aaronson. 1999. "Age differences in second language acquisition: the dominant language switch and maintenance hypothesis." *Boston University Conference on Language Development Proceedings* 23: 1: 301-312.
- Johnson, Jacqueline S., and Elissa L. Newport. 1989. "Critical period effects in second language learning: The influence of maturational state on the acquisition of ESL." *Cognitive Psychology* 21: 60-99.
- Jones, Robert Owen. 1993. "The Sociolinguistics of Welsh." In *The Celtic Languages* edited by Martin J. Ball, 536-605. London: Routledge.
- Kanno, Kazue, Tomomi Hasegawa, Keiko Ikeda, Yasuko Ito and Michael H. Long. 2008. "Prior Language-Learning Experience and Variation in the Linguistic Profiles of Advanced English-Speaking Learners of Japanese." in *Heritage Language Education: A New Field Emerging*, edited by Donna M. Brinton, Olga Kagan and Susan Bauckus, 165-180. New York: Routledge.
- Keenan, Edward L., and Bernard Comrie. 1977. "Noun phrase accessibility and universal grammar." *Linguistic Inquiry* 8: 1: 63-99.
- Keijzer, Merel. 2004. "First language attrition: a cross-linguistic investigation of Jakobson's regression hypothesis." *international Journal of Bilingualism* 8: 3: 389-393.
- Kharkhurin, Anatoliy V. 2010. "Bilingual verbal and nonverbal creative behavior." *International Journal of Bilingualism* 14: 2: 211-226.
- King, Gareth. 2003. *Modern Welsh: A Comprehensive Grammar*, second edition. London, UK: Routledge.
- Klein, Elaine C. 1995. "Second versus third language acquisition: Is there a difference?" *Language Learning* 45: 3: 419-465.
- Knightly, Leah M., Sun-Ah Jun, Janet S. Oh and Terry Kit-fong Au. 2003. "Production benefits of childhood overhearing." *Journal of the Acoustical Society of America* 114: 1: 465-477.
- Knowles-Berry, Susan. 1987. "Linguistic decay in Chontal Mayan: The speech of semi-speakers." *Anthropological Linguistics* 29: 4: 332-341.

- Köpke, Barbara. 2007. "Language attrition at the crossroads of brain, mind, and society." In *Language Attrition: Theoretical Perspectives*, edited by Barbara Köpke, Monika S. Schmid, Merel Keijzer, and Susan Dostert. Amsterdam: John Benjamins Publishing Company. pp. 9-37.
- Kormos, Judit, and Mariann Dénes. 2004. "Exploring measures and perceptions of fluency in the speech of second language learners." *System* 32: 145-164.
- Krashen, Stephen D. 1982. *Principles and Practice in Second Language Acquisition*. New York, NY: Pergamon.
- Krashen, Stephen D., Michael A. Long, and Robin C. Scarcella. 1979. "Age, rate and eventual attainment in second language acquisition." *TESOL Quarterly* 13: 4: 573-582.
- Lenneberg, Eric H. 1967. *Biological Foundations of Language*. New York: Wiley.
- Lennon, Paul. 1990. "Investigating Fluency in EFL: A Quantitative Approach". *Language Learning* 40: 3: 387-417.
- Lieber, R. 1983. "New developments in autosegmental morphology: consonant mutation." In *Proceedings of the Second West Coast Conference on Formal Linguistics*, edited by D. Flikinger, et al. Stanford, CA: Stanford Linguistics Association.
- Lynch, Andrew. 2003. "The Relationship between Second and Heritage Language Acquisition: Notes on Research and Theory Building." *Heritage Language Journal* 1: 1-18.
- MacKay, Donald G., and Deborah M. Burke. 1990. "Cognition and aging: new learning and the use of old connections." In *Aging and Cognition: Knowledge Organization and Utilization*, edited by T. M. Hess, 213-263. Amsterdam: North Holland.
- Marx, Otto. 1959. "Appendix B: The history of the biological basis of language." in *Biological Foundations of Language*, by Eric H. Lenneberg, 443-469. New York: Wiley.
- Mayer, Mercer. 1969. *Frog, Where Are You?* New York, NY: Dial Books For Young Readers, Penguin Putnam Inc.
- McCloskey, James. 2001. *Voices Silenced: Has Irish a Future?* Dublin, Ireland: Cois Life Teoranta.
- McCloskey, James, and Kenneth Hale. 1983. "On the syntax of person-number inflection in modern Irish." *Natural Language and Linguistic Theory* 1: 4: 487-533.
- Montanari, Simona. 2004. "The development of narrative competence in the L1 and L2 of Spanish-English bilingual children." *International Journal of Bilingualism* 8: 4: 449-497.
- Montrul, Silvina. 2005. "Second language acquisition and first language loss in adult early bilinguals: exploring some differences and similarities." *Second Language Research* 21: 3: 199-249.
- . 2008. *Incomplete Acquisition in Bilingualism: Re-examining the Age Factor*. Amsterdam: John Benjamins.
- Morris, Delyth. 2010. "Young people and their use of the Welsh language." In *Welsh in the Twenty-First Century*, edited by Delyth Morris, 80-98. Cardiff: University of Wales Press.

- Morris, Steve. 2000. "Adult Education, Language Revival, and Language Planning." In *Language Revitalization: Policy and Planning in Wales*, edited by Colin H. Williams, 208-220. Cardiff, Wales: University of Wales Press.
- National Heritage Language Resource Center. 2013. "About Us." Accessed March 29. <http://www.nhlrc.ucla.edu/about/>
- Newmark, Leonard, and David A. Reibel. 1968. "Necessity and sufficiency in language learning." *International Review of Applied Linguistics* 6: 145-164.
- Newport, Elissa L. 1990. "Maturation constraints on language learning." *Cognitive Science* 14: 11-28.
- Nicholas, Margorie, Loraine Obler, Martin Albert, and Harold Goodglass. 1985. "Lexical retrieval in healthy aging". *Cortex* 21: 595-606.
- Nippold, Marilyn A. 1998. *Later Language Development: The School-Age and Adolescent Years*, second edition. Austin, TX: Pro-Ed.
- Nisbett, Richard E. 2009. *Intelligence and How to Get It: Why Schools and Cultures Count*. New York: W. W. Norton & Co.
- Office for National Statistics. 2011a. "Household Questionnaire: Wales." Accessed April 5, 2014. http://www.ons.gov.uk/ons/guide-method/census/2011/index.html?utm_source=LCRN+News+Service&utm_campaign=2da3bf9763-LCRN_Resource_eNews_Volume_2_Issue_42_10_2011&utm_medium=email.
- . 2011b. "Household Questionnaire: England." Accessed April 5, 2014. http://www.ons.gov.uk/ons/guide-method/census/2011/index.html?utm_source=LCRN+News+Service&utm_campaign=2da3bf9763-LCRN_Resource_eNews_Volume_2_Issue_42_10_2011&utm_medium=email.
- . 2012. "2011 Census: Welsh language profile, unitary authorities in Wales, table KS208WA." (released December 11, 2012). Accessed August 31, 2013. <http://www.ons.gov.uk/ons/guide-method/census/2011/index.html>.
- . 2013a. "2011 Census: Main language (detailed), local authorities in England and Wales, table QS204EW." (released January 30, 2013). Accessed August 31, 2013. <http://www.ons.gov.uk/ons/guide-method/census/2011/index.html>.
- . 2013b. "2011 Census: National identity (detailed), local authorities in England and Wales, table QS214EW." (released March 26, 2013). Accessed August 31, 2013. <http://www.ons.gov.uk/ons/guide-method/census/2011/index.html>.
- Oh, Janet S., Sun-Ah Jun, Leah M. Knightly and Terry Kit-fong Au. 2003. "Holding on to childhood language memory." *Cognition* 86: B53-B64.
- Olshtain, Elite, and Margaret Barzilay. 1991. "Lexical retrieval difficulties in adult language attrition." in *First Language Attrition*. edited by Herbert W. Seliger and Robert M. Vago, 139-150. Cambridge: Cambridge University Press.
- Ouhalla, Jamal. 1991. *Functional Categories and Parametric Variation*. London, UK: Routledge.

Pallier, C., S. Dehaene, J.-B. Poline, D. Le Bihan, A.-M. Argenti, E. Dupoux, and J. Mehler. 2003. "Brain imaging of language plasticity in adopted adults: Can a second language replace the first?." *Cerebral Cortex* 13: 155-161.

Paradis, Michel. 2004. *A Neurolinguistic Theory of Bilingualism*. Amsterdam: John Benjamins.

———. 2007. "L1 attrition features predicted by a neurolinguistic theory of bilingualism." in *Language Attrition: Theoretical Perspectives*, edited by Barbara Köpke, Monika S. Schmid, Merel Keijzer, and Susan Dostert, 121-133. Amsterdam: John Benjamins Publishing Company.

Parodi, Claudia. 2008. "Stigmatized Spanish Inside the Classroom and Out: A Model of Language Teaching to Heritage Speakers." *Heritage Language Education: A New Field Emerging*. eds. Donna M. Brinton, Olga Kagan and Susan Bauckus. 199-214. New York: Routledge.

Pavlenko, Aneta. 2004. "L2 influence and L1 attrition in adult bilingualism." in *First Language Attrition: Interdisciplinary perspectives on methodological issues*, edited by Monika S. Schmid, Barbara Köpke, Merel Keijzer and Lina Weilemar, 47-59. Amsterdam: John Benjamins Publishing Company.

Peal, E., and W. E. Lambert. 1962. "The relation of bilingualism to intelligence." *Psychological Monographs: General and Applied* 76: 27: 1-23.

Peçenek, Dilek. 2010. "A longitudinal study of two boys' experiences of acquiring Italian as a second language: the influence of age." *International Journal of Bilingualism* 15: 3: 268-290.

Penfield, Wilder, and Lamar Roberts. 1959. *Speech and Brain Mechanisms*. Princeton, NJ: Princeton University Press.

Pesetsky, David. 2009. "Linguistic Universals and Universal Grammar." In *MITCogNet: References Collection*. Cambridge, MA: MIT Press. accessed March 31, 2014.

Peyton, Joy Kreeft, Donald A. Ranard, and Scott McGinnis, editors. 2001. *Heritage Languages in America: Preserving a National Resource*. McHenry, IL: Delta Systems Co. and Center for Applied Linguistics.

Pinto, Derrin, and Richard Raschio. 2007. "A comparative study of requests in heritage speaker Spanish, L1 Spanish, and L1 English." *International Journal of Bilingualism* 11: 2: 135-155.

Pires, Acrisio, and Jason Rothman. 2009. "Disentangling sources of incomplete acquisition: An explanation for competence divergence across heritage grammars." *International Journal of Bilingualism* 13: 2: 211-238.

Polinsky, Maria. 2005. "Word class distinctions in an incomplete grammar." in *Perspectives on Language and Language Development*, edited by Dorit Diskin Ravid and Hava Bat-Zeev Shyldkrot, 419-434. Dordrecht: Kluwer Academic Publishers.

———. 2008a. "Heritage Language Narratives." in *Heritage Language Education: A New Field Emerging*. edited by Donna M. Brinton, Olga Kagen and Susan Bauckus, 149-164. New York: Routledge.

———. 2008b. "Gender under incomplete acquisition: Heritage speakers' knowledge of noun categorization." *Heritage Language Journal* 6: 1: 40-71.

- . 2011. “Reanalysis in adult heritage language: New evidence in support of attrition.” *Studies in Second Language Acquisition* 33: 305-328.
- Polinsky, Maria, and Olga Kagan. 2007. “Heritage Languages: In the “Wild” and in the Classroom.” *Language and Linguistics Compass* 1: 5: 368-395.
- Ramsey, Craig A., and E. N. Wright. 1974. “Age and second language learning.” *Journal of Social Psychology* 94: 115-121.
- Ramus, Franck, Marina Nespors, and Jacques Mehler. 1999. “Correlates of linguistic rhythm in the speech signal.” *Cognition* 73: 3: 265-292.
- Raven, J. C. 1936. “Mental Tests Used in Genetic Studies: The Performance of Related Individuals on Tests Mainly Educative and Mainly Reproductive.” MSc thesis, University of London.
- Roberts, Ian. 1997. “The Syntax of Direct Object Mutation in Welsh.” *Canadian Journal of Linguistics* 42: 1-2: 141-168.
- . 2005. *Principles and Parameters in a VSO Language: A Case Study in Welsh*. Oxford, UK: Oxford University Press.
- Roberts, Ian, and Ur Shlonsky. 1996. “Pronominal enclisis in VSO languages.” In *The Syntax of the Celtic Languages*, edited by Robert D. Borsley and Ian Roberts, 171-199. Cambridge, UK: Cambridge University Press.
- Roeper, Tom. 2007. “What frequency can do and what it can’t.” In *Frequency Effects in Language Acquisition*, edited by Insa Gülzow and Natalia Gagarina, 23-47. Berlin: Mouton de Gruyter.
- Romaine, Suzanne. 1989. *Bilingualism*. Oxford: Blackwell.
- Romaine, Suzanne. 1995. *Bilingualism*, second edition. Oxford: Blackwell.
- Rosier, Paul and Marilyn Farella. 1976. “Bilingual Education at Rock Point: Some early results.” *TESOL Quarterly* 10: 4: 379-388.
- Rothman, Jason. 2007. “Heritage speaker competence differences, language change, and input type: Inflected infinitives in Heritage Brazilian Portuguese.” *International Journal of Bilingualism* 11: 4: 359-389.
- Rouveret, Alain. 1994. *Syntaxe du Gallois: Principes généraux et typologie*. Paris, France: CNRS Éditions.
- Sadler, Louisa. 1988. *Welsh Syntax: A Government-Binding Approach*. New York, NY: Croom Helm.
- . 1999. “Non-Distributive Features in Welsh Coordination.” in *Proceedings of the LFG99 Conference*, edited by Miriam Butt and Tracy Holloway King, CSLI Publications, <http://www.stanford.edu/group/cslipublications/cslipublications/LFG/4/sadler/lfg99-sadler.html>.
- Saer, D. 1923. “The effect of bilingualism on intelligence.” *British Journal of Psychology* 14: 1: 25-38.

- Schachter, Jacquelyn. 1990. "On the issue of completeness in second language acquisition." *Second Language Research* 6: 93-124.
- Schwartz, Mila, Ely Kozminsky and Mark Leikin. 2009. "Delayed acquisition of irregular inflectional morphology in Hebrew in early sequential bilingualism." *International Journal of Bilingualism* 13: 4: 501-522.
- Scovel, Thomas. 1988. *A Time to Speak: A Psycholinguistic Inquiry into the Critical Period for Human Language*. Rowley, MA: Newbury House.
- Segalowitz, Norman. 2010. *Cognitive Bases of Second Language Fluency*. London: Routledge.
- Seliger, Herbert. 1989. "Deterioration and creativity in childhood bilingualism." In *Bilingualism Across the Lifespan*, edited by Kenneth Hyttenstam and Loraine K. Obler, 173-184. Cambridge: Cambridge University Press.
- Selinker, Larry. 1972. "Interlanguage." *International Review of Applied Linguistics in Language Teaching* 10: 209-231.
- Silva-Corvalán, Carmen. 1991. "Spanish language attrition in a contact situation with English." in *First Language Attrition*, edited by Herbert W. Seliger and Robert M. Vago, 151-171. Cambridge, UK: Cambridge University Press.
- Singleton, David, and Lisa Ryan. 2004. *Language Acquisition: The Age Factor*, second edition. Clevedon: Multilingual Matters.
- Smedts, W. 1988. "De beheersing van de nederlandse woordvorming tussen 7 en 17 (The mastering of Dutch word formation between 7 and 17)." in *First Language Acquisition*, edited by F. van Biesen. Antwerp: Association Belge de Linguistique Appliquée/Universitaire Instelling Antwerpen (ABLA Papers No. 12).
- Smith, Frank. 1923. "Bilingualism and mental development." *British Journal of Psychology* 13: 3: 271-282.
- Snow, Catherine E. and Martin Hoefnagel-Höhle. 1978. "The Critical Period for Language Acquisition: Evidence from Second Language Learning." *Child Development* 49: 4: 1114-1128.
- Sorace, Antonella. 1993. "Incomplete vs. divergent representations of unaccusativity in native and non-native Italian grammars of Italian." *Second Language Research* 9: 22-47.
- . 2011. "Pinning down the concept of "interface" in bilingualism." *Linguistic Approaches to Bilingualism* 1: 1: 1-33.
- Sorace, Antonella, and Ludovica Serratrice. 2009. "Internal and external interfaces in bilingual language development: Beyond structural overlap." *International Journal of Bilingualism* 13: 2: 195-210.
- Sproat, Richard. 1985. "Welsh Syntax and VSO Structure." *Natural Language and Linguistic Theory* 3: 2: 173-216.
- Streeter, Lynn A. 1976. "Language perception of 2-month old infants shows effects of both innate mechanisms and experience." *Nature* 259: 39-41.

- Tahta, Sonia, Margaret Wood, and Kate Loewenthal. 1981. "Age changes in the ability to replicate foreign pronunciation and intonation." *Language and Speech* 24: 4: 363-372.
- Tallerman, Maggie. 1990. "VSO word order and consonantal mutation in Welsh." *Linguistics* 28: 389-416.
- . 2006. "The syntax of Welsh "direct object mutation" revisited." *Lingua* 116: 1750-1776.
- Tees, Richard C., and Janet F. Werker. 1984. "Perceptual flexibility: Maintenance or recovery of the ability to discriminate non-native speech sounds." *Canadian Journal of Psychology* 38: 4: 579-590.
- Thal, D, and E Bates. 1990. "Continuity and variation in early language development." in *Individual Differences in Infancy: Reliability, Stability, Prediction*. edited by J Colombo and J Fagen. Hillsdale, NJ: Laurence Erlbaum.
- Thomas, Beth. 2000. "The riches of the past? Recording Welsh dialects." In *'Let's Do Our Best For the Ancient Tongue': The Welsh Language in the Twentieth Century*, edited by Geraint H. Jenkins and Mari A. Williams, 421-437. Cardiff, Wales: University of Wales Press.
- Thomas, Huw S., and Colin H. Williams. eds. 2013. *Parents, Personalities, and Power: Welsh-Medium Schools in South-East Wales*. Cardiff: University of Wales Press.
- Thomas, Peter Wynn. 1996. *Gramadeg y Gymraeg*. Cardiff: University of Wales Press.
- Thordardottir, Elin. 2011. "The relationship between bilingual exposure and vocabulary development." *International Journal of Bilingualism* 15: 4: 426-445.
- Thurstone, Louis Leon. 1938. *Primary Mental Abilities*. Psychometric Monographs, vol. 1. Chicago: University of Chicago Press.
- . 1955. *The Differential Growth of Mental Abilities*. Chapel Hill, NC: University of North Carolina Press.
- Tomasello, M., and E. Bates. 2001. "Introduction to part I: Speech perception." in *Language Development: The Essential Readings*. edited by M Tomasello and E Bates. Oxford: Blackwell.
- Towell, R., R. Hawkins and N. Bazergui. 1996. "The development of fluency in advanced learners of French." *Applied Linguistics* 17: 1: 84-119.
- Tracy, Rosemarie and Elsa Lattey. 2009. " "It wasn't easy but irgendwie äh da hat sich's rentiert, net?": a linguistic profile." In *Dimensionen der Zweitsprachenforschung: Festschrift für Kurt Kohn*, edited by Michaela Albl-Mikasa, Sabine Braun, and Sylvia Kalina, 53-73. Tübingen, Germany: Narr Verlag.
- Treffers-Daller, Jeanine. 2010. "Operationalizing and measuring language dominance." *International Journal of Bilingualism* 15: 2: 147-163.
- Treffers-Daller, Jeanine and Jeanette Sakel. 2012. "Why transfer is a key aspect of language use and processing in bilinguals and L2 users." *International Journal of Bilingualism* 16: 1: 3-10.

- Tsimpli, Ianthi Maria. 2007. "First language attrition from a minimalist perspective: Interface vulnerability and processing effects." In *Language Attrition: Theoretical Perspectives*, edited by B. Köpke, M. Schmid, M. Keijzer, and S. Dostert, 83-98. Amsterdam: John Benjamins.
- Tsimpli, Ianthi, Antonella Sorace, Caroline Heycock, and Francesca Filiaci. 2004. "First language attrition and syntactic subjects: A study of Greek and Italian near-native speakers of English." *International Journal of Bilingualism* 8: 3: 257-277.
- Ueno, Mieko, and Maria Polinsky. 2009. "Does headedness affect processing? A new look at the VO-OV contrast." *Journal of Linguistics* 45: 675-710.
- UNESCO. 2014. "Interactive Atlas of the World's Languages." Accessed April 4, 2014. <http://www.unesco.org/culture/languages-atlas/index.php?hl=en&page=atlasmap&lid=362>
- Valdés, Guadalupe. 2001. "Heritage Language Students: Profiles and Possibilities." in *Heritage Languages in America: Blueprint for the Future*, edited by Joy Kreeft Peyton, Donald A. Ranard, and Scott McGinnis. 37-77. Washington, DC and McHenry, IL: Center for Applied Linguistics and Delta Systems.
- Ventureyra, Valérie A.G., Christophe Pallier, and Hi-Yon Yoo. 2004. "The loss of first language phonetic perception in adopted Koreans." *Journal of Neurolinguistics* 17: 79-91.
- Volterra, Virginia and Traute Taeschner. 1978. "The acquisition and development of language by bilingual children." *The Journal of Child Language* 5: 2: 311-326.
- Watson, Seosamh. 1989. "Scottish and Irish Gaelic: The giant's bedfellows." In *Investigating Obsolescence*, edited by Nancy C. Dorian, 41-59. Cambridge, UK: Cambridge University Press.
- Welsh Assembly Government. 2008. "Welsh in the National Curriculum for Wales." Accessed April 4, 2014. <http://wales.gov.uk/topics/educationandskills/schoolshome/curriculuminwales/arevisedcurriculumforwales/nationalcurriculum/?lang=en>
- . 2010. "Welsh Medium Education Strategy." Information document number 083/2010. Accessed September 1, 2013. <http://wales.gov.uk/docs/dcells/publications/100420welshmediumstrategyen.pdf>.
- Welsh Language Board. 2006. "2004 Welsh Language Use Survey." Cardiff, Wales: Welsh Assembly Government.
- White, Lydia. 2003a. "Fossilization in steady state L2 grammars: Persistent problems with inflectional morphology." *Bilingualism: Language and Cognition* 6: 2: 129-141.
- . 2003b. *Second Language Acquisition and Universal Grammar*. Cambridge Textbooks in Linguistics. Cambridge, UK: Cambridge University Press.
- Wiesel, Torsten N., and David H. Hubel. 1963. "Effects of visual deprivation on morphology and physiology of cells in the cat's lateral geniculate body." *Journal of Neurophysiology* 26: 6: 978-993.
- Wiley, Terrence G. 2008. "Chinese "Dialect" Speakers as Heritage Language Learners." *Heritage Language Education: A New Field Emerging*, edited by Donna M. Brinton, Olga Kagan and Susan Bauckus, 91-105. New York: Routledge.

- Williams, Colin H. ed. 2000. *Language Revitalization: Policy and Planning in Wales*. Cardiff: University of Wales Press.
- Williams, Glyn and Delyth Morris. 2000. *Language Planning and Language Use: Welsh in a Global Age*. Cardiff: University of Wales Press.
- Wong, Ka F., and Yang Xiao. 2010. "Diversity and difference: Identity issues of Chinese heritage language learners from dialect backgrounds." *Heritage Language Journal* 7: 2: 153-187.
- Wood, David. 2001. "In search of fluency: What it is and how can we teach it?." *The Canadian Modern Language Review* 57: 4: 573-589.
- Yamada, Jun, Shigenobu Takatsuka, Nobuko Kotake, and Junko Kurusu. 1980. "On the optimum age for teaching foreign vocabulary to children." *International Review of Applied Linguistics in Language Teaching* 18: 245-247.
- Yang, Charles. 2007. "Counting grammars." In *Frequency Effects in Language Acquisition*, edited by Insa Güllow and Natalia Gagarina, 389-406. Berlin: Mouton de Gruyter.
- Zhang, Shu, Michael W. Morris, Chi-Ying Cheng, and Andy J. Yap. 2013. "Heritage-culture images disrupt immigrants' second-language processing through triggering first-language interference." *Proceedings of the National Academy of Sciences of the United States of America* 110: 28: 11272-11277.
- Zwicky, Arnold M. 1984. "Welsh soft mutation and the case of object NPs." In *Papers from the Twentieth Regional Meeting of the Chicago Linguistic Society*, edited by Joseph Drogo, Veena Mishra, and David Testa, 387-402. Chicago, IL: Chicago Linguistic Society.

Appendix I.1 Tables of the Heritage Welsh Data

Table I.1.1 Heritage Welsh speaker narratives - times and word counts for each sample narrative

	Word Count	Seconds	Minutes	Words Per Minute
DL1	1135	723	12.05	94.19087137
DL2	414	257	4.283333333	96.6536965
DL3	1114	504	8.4	132.6190476
DL4	828	622	10.36666667	79.87138264
DL5	484	228	3.8	127.3684211
DL6	351	416	6.933333333	50.625
DL7	793	453	7.55	105.0331126
DL9	1060	487	8.116666667	130.5954825
DL10	298	342	5.7	52.28070175
DL11	585	410	6.833333333	85.6097561
DL12	614	571	9.516666667	64.51838879
DL13	189	207	3.45	54.7826087
DC14	404	341	5.683333333	71.08504399
DL15	505	299	4.983333333	101.3377926
DL16	705	278	4.633333333	152.1582734
DL17	531	237	3.95	134.4303797
L2	841	487	8.116666667	103.613963
L5	767	380	6.333333333	121.1052632
L6	508	276	4.6	110.4347826
A1	679	455	7.583333333	89.53846154

Table I.1.2 Heritage Welsh speaker narratives - total pauses in each narrative

	Filled Pauses	1 Second Pauses	2 Second Pauses	3 Second Pauses	4 Second Pauses
DL1	75	157	27	0	0
DL2	17	40	22	0	0
DL3	10	67	39	4	1
DL4	28	84	38	0	0
DL5	3	29	23	0	0
DL6	46	60	34	0	0
DL7	108	69	18	0	0
DL9	80	52	17	0	0
DL10	72	26	20	0	0
DL11	55	39	24	4	3
DL12	140	48	14	2	0
DL13	12	10	12	4	4
DC14	60	27	20	0	0
DL15	34	37	18	2	0
DL16	26	45	7	0	0
DL17	31	27	11	0	0
L2	14	69	30	4	0
L5	44	53	23	1	0
L6	0	40	30	1	0
A1	14	75	43	0	0

Table I.1.3 Heritage Welsh speaker narratives - components of fluency, narrative totals

	Retraces	Corrections	Embeddings	Vocabulary Recall Delay
DL1	22	19	30	43
DL2	7	8	9	81
DL3	3	6	33	30
DL4	19	15	17	23
DL5	9	6	13	12
DL6	8	6	0	52
DL7	27	11	21	56
DL9	38	15	38	27
DL10	66	9	8	29
DL11	26	8	14	21
DL12	89	11	17	48
DL13	10	0	0	98
DC14	14	3	0	47
DL15	15	10	17	48
DL16	11	7	26	14
DL17	29	12	17	29
L2	53	15	27	39
L5	46	22	14	62
L6	1	2	17	8
A1	8	13	8	41

Table I.1.4 Heritage Welsh speaker narratives - total utterances in each narrative; fluency measures per utterance

	Utterances	MLU	Embeddings Per Utterance	Vocabulary Recall Delay Per Utterance	Retraces Per Utterance	Corrections Per Utterance
DL1	190	5.973684211	0.157894737	0.226315789	0.115789474	0.1
DL2	60	6.9	0.15	1.35	0.116666667	0.133333333
DL3	110	10.12727273	0.3	0.272727273	0.027272727	0.054545455
DL4	123	6.731707317	0.138211382	0.18699187	0.154471545	0.12195122
DL5	52	9.307692308	0.25	0.230769231	0.173076923	0.115384615
DL6	80	4.3875	0	0.65	0.1	0.075
DL7	157	5.050955414	0.133757962	0.356687898	0.171974522	0.070063694
DL9	131	8.091603053	0.290076336	0.20610687	0.29007634	0.114503817
DL10	79	3.772151899	0.101265823	0.367088608	0.835443038	0.113924051
DL11	105	5.571428571	0.133333333	0.2	0.247619048	0.076190476
DL12	141	4.354609929	0.120567376	0.340425532	0.631205674	0.078014184
DL13	40	4.725	0	2.45	0.25	0
DC14	67	6.029850746	0.014925373	0.701492537	0.208955224	0.044776119
DL15	79	6.392405063	0.215189873	0.607594937	0.189873418	0.126582278
DL16	64	11.015625	0.40625	0.21875	0.171875	0.109375
DL17	63	8.428571429	0.26984127	0.46031746	0.46031746	0.19047619
L2	112	7.508928571	0.241071429	0.348214286	0.473214286	0.133928571
L5	110	6.972727273	0.127272727	0.563636364	0.418181818	0.2
L6	73	6.95890411	0.232876712	0.109589041	0.01369863	0.02739726
A1	124	5.475806452	0.064516129	0.330645161	0.064516129	0.10483871

Table I.1.5 Heritage Welsh speaker narratives - input variables for each speaker

	Media Exposure Per Week	Conversational Use/Practice Per Week	Age At Language Shift	Welsh Instruction in School
DL1	0	1	2.5	1
DL2	0	0.25	0	0
DL3	2	3.5	3.5	2
DL4	0.25	3	8	1
DL5	10	6	18	5
DL6	3	0.5	4	0
DL7	2	7	0	1
DL9	8	2	12	4
DL10	5	1	0	0
DL11	1	2	3	3
DL12	6	2	0	0
DL13	0	0	7	3
DC14	1	0	0	1
DL15	1	3	4	3
DL16	1	21	10	2
DL17	2	40	8	4
L2	3	10	6	1
L5	2	0.1	4	4
L6	0.1	3	0	4
A1	0.1	0.25	0	1

(Welsh Instruction in School coding: 0 = no formal instruction, 1 = studied as a subject 1-3 years, 2 = studied as a subject 4 or more years, 3 = Welsh medium education at the primary level, 4 = Welsh medium education at the primary level and studied as a subject at the secondary level, 5 = Welsh medium education at the primary and secondary levels)

Table I.1.6 Heritage Welsh speaker narratives - total counts of aspirate mutation (following lexical triggers)

	aspirate mutation applied instead of another expected mutation	unexpected aspirate mutation (had not been triggered)	absence of expected aspirate mutation	aspirate mutation where expected
A1	0	0	2(after “a”)	0
DC14	0	0	1(after “a”)	0
DL1	2/SM (after “ei”)	0	1(after “gyda”)	1(after “ei”)
DL2	0	0	0	0
DL3	0	0	0	0
DL4	0	0	1(after “a”)	0
DL5	0	0	0	0
DL6	0	1(after “thrwy”)	2(after “gyda” and “a”)	0
DL7	0	0	0	0
DL9	0	0	1(after “a”)	0
DL10	0	0	0	0
DL11	0	0	1(after “gyda”)	0
DL12	0	0	0	0
DL13	0	0	0	0
DL15	0	0	1(after “a”)	0
DL16	0	0	0	0
DL17	0	0	0	0
L2	0	0	0	0
L5	0	0	2(after “gyda”)	0
L6	0	0	0	0

Table I.1.7 Heritage Welsh speaker narratives - total counts of the nasal mutation (following lexical triggers)

	nasal mutation applied instead of another expected mutation	unexpected nasal mutation (had not been triggered)	absence of expected nasal mutation	nasal mutation where expected
A1	0	0	1(after “yn”)	0
DC14	0	0	0	0
DL1	0	0	0	2(after “yn”)
DL2	0	0	0	0
DL3	1/SM (after “yn”)	0	0	1(after “yn”)
DL4	0	0	0	0
DL5	0	0	0	1(after “yn”)
DL6	0	0	0	0
DL7	0	0	1(after “yn”)	0
DL9	0	0	0	0
DL10	0	0	0	0
DL11	0	0	3(after “yn”)	0
DL12	0	0	0	1(after “yn”)
DL13	0	0	0	0
DL15	0	0	0	0
DL16	0	0	0	0
DL17	0	0	0	0
L2	0	0	0	0
L5	0	0	0	0
L6	0	0	1(after “yn”)	1(after “yn”)

Table I.1.8 Heritage Welsh speaker narratives - total counts of soft mutation triggered by syntactic/grammatical context

	unexpected soft mutation (no trigger)	absence of expected soft mutation	soft mutation where expected
A1	1	0	0
DC14	0	0	0
DL1	0	6	0
DL2	0	0	0
DL3	1	2	10
DL4	0	0	0
DL5	0	0	0
DL6	0	0	0
DL7	0	0	0
DL9	0	0	1
DL10	0	0	0
DL11	0	1	0
DL12	0	3	1
DL13	0	0	0
DL15	0	0	0
DL16	0	0	1
DL17	0	0	0
L2	0	1	1
L5	0	3	1
L6	0	2	3

Table I.1.9 Heritage Welsh speaker narratives - total counts of soft mutation triggered by the feminine gender context (nouns after the article and adjectives after the noun)

	unexpected soft mutation (no trigger)	absence of expected soft mutation	soft mutation where expected
A1	1	2	2
DC14	1	2	11
DL1	1	10	4
DL2	0	5	0
DL3	5	0	8
DL4	2	1	19
DL5	0	6	4
DL6	0	4	4
DL7	3	4	2
DL9	7	0	19
DL10	0	2	2
DL11	7	2	2
DL12	4	3	5
DL13	4	1	0
DL15	0	0	0
DL16	4	0	5
DL17	1	4	2
L2	0	6	4
L5	8	3	2
L6	0	5	3

Table I.1.10 Heritage Welsh speaker narratives - total counts of soft mutation after lexical triggers

	soft mutation applied instead of another expected mutation	unexpected soft mutation (no trigger)	absence of soft mutation	soft mutation where expected
A1	0	6	3	9
DC14	1/AM	0	3	7
DL1	0	0	17	13
DL2	0	0	8	1
DL3	1/NM,1/AM	2	3	32
DL4	1/AM	2	10	16
DL5	0	1	3	10
DL6	0	0	3	2
DL7	1/NM	0	17	13
DL9	0	3	9	23
DL10	0	0	4	3
DL11	0	0	7	3
DL12	1/AM	1	9	12
DL13	0	0	1	0
DL15	0	0	5	2
DL16	3/NM, 1/AM	4	5	16
DL17	0	2	6	6
L2	0	1	13	1
L5	1/AM	0	11	8
L6	0	0	6	8

Table I.1.11 Heritage Welsh speaker narratives - total counts of the aspectual particles/markers, with or without a preceding form of bod 'to be'

	yn - progressive aspect	wedi - perfective aspect
A1	65	15
DC14	26	10
DL1	62	24
DL2	19	9
DL3	55	20
DL4	65	16
DL5	43	4
DL6	17	9
DL7	34	8
DL9	62	14
DL10	29	1
DL11	39	10
DL12	52	1
DL13	1	1
DL15	40	12
DL16	38	8
DL17	36	29
L2	63	15
L5	49	10
L6	47	3

Table I.1.12 Heritage Welsh speaker narratives - total counts of the present tense of bod 'to be' (mae)

	<i>mae</i> with <i>yn</i> , progressive aspect	<i>mae</i> with <i>wedi</i> , perfective aspect	existential/descriptive <i>mae</i>	<i>mae</i> with missing aspect marker (divergent from expected norm)
A1	48	6	3	0
DC14	21	9	10	0
DL1	45	18	20	0
DL2	0	0	0	0
DL3	45	15	19	11
DL4	53	10	14	2
DL5	35	2	2	0
DL6	16	4	1	1
DL7	15	2	5	1
DL9	32	4	12	2
DL10	26	0	5	1
DL11	19	6	10	0
DL12	45	0	12	2
DL13	1	0	1	1
DL15	30	5	7	5
DL16	29	7	20	3
DL17	34	26	10	3
L2	47	13	25	3
L5	42	7	23	3
L6	35	3	17	2

Table I.1.13 Heritage Welsh speaker narratives - total counts of the imperfect tense of bod 'to be' (oedd)

	<i>oedd</i> with <i>yn</i> , progressive aspect	<i>oedd</i> with <i>wedi</i> , perfective aspect	existential/descriptive <i>oedd</i>	<i>oedd</i> with missing aspect marker (divergent from expected norm)
A1	2	0	3	0
DC14	0	0	0	0
DL1	3	1	4	0
DL2	0	0	0	0
DL3	6	0	1	0
DL4	4	1	0	1
DL5	0	0	0	0
DL6	0	0	0	0
DL7	13	0	4	0
DL9	9	2	11	1
DL10	0	0	0	0
DL11	7	2	5	0
DL12	0	0	2	0
DL13	0	0	0	0
DL15	3	1	2	0
DL16	0	0	1	0
DL17	0	0	0	0
L2	0	1	1	0
L5	2	0	4	2
L6	0	0	0	0

Table I.1.14 Heritage Welsh speaker narratives - other forms of *bod* 'to be' (besides the present and imperfect tenses, see tables I.1.12 and I.1.13)

	interrogative and negative existential <i>bod</i> - <i>oes/does dim</i>	copula - <i>yw</i> or <i>oedd</i>	relative 'that' - <i>bod</i>	relative 'who, which' - <i>sy(dd)</i>	relative with copula construction - <i>mai/taw</i>	inflected past tense of <i>bod</i> (any person and number)	inflected future tense of <i>bod</i> (any person and number)
A1	0	0	2	1	0	0	0
DC14	0	0	0	0	0	0	0
DL1	0	5	0	4	2	0	0
DL2	0	0	0	0	0	0	0
DL3	2	5	3	4	2	0	1
DL4	0	4	1	7	0	0	0
DL5	1	0	0	3	0	0	0
DL6	0	1	0	0	0	0	0
DL7	0	8	5	4	0	0	0
DL9	0	3	8	1	1	0	1
DL10	0	1	1	0	0	0	0
DL11	0	0	0	2	0	0	0
DL12	0	3	1	4	0	0	0
DL13	0	0	0	0	0	0	0
DL15	1	2	9	0	0	0	0
DL16	0	2	3	13	0	0	0
DL17	0	0	1	1	0	0	0
L2	0	8	8	1	1	0	0
L5	0	1	2	2	0	0	0
L6	4	0	1	2	0	0	0

Table I.1.15 Heritage Welsh speaker narratives - synthetic verb forms (lexical verb inflected for tense, aspect and agreement) and bod inflected for the conditional mood

	synthetic past tense	synthetic future tense	imperative forms	conditional <i>bod</i>
A1	6	0	0	0
DC14	1	0	0	0
DL1	0	0	0	0
DL2	0	0	0	0
DL3	7	4	0	4
DL4	0	0	0	0
DL5	0	0	0	0
DL6	0	0	0	0
DL7	30	0	0	0
DL9	15	0	0	0
DL10	0	0	0	0
DL11	8	0	0	0
DL12	0	0	0	0
DL13	0	0	0	0
DL15	1	0	0	0
DL16	1	0	0	0
DL17	0	0	0	0
L2	0	1	0	0
L5	3	0	0	0
L6	0	0	0	0

Table I.1.16 Heritage Welsh speaker narratives - instances of the null subject option in each narrative sample

	null subject after present tense of <i>bod</i> in periphrastic construction - <i>mae</i>	null subject after imperfect tense of <i>bod</i> in periphrastic construction - <i>oedd</i>	null subject with a synthetic verb form
A1	14	0	0
DC14	5	0	0
DL1	2	1	0
DL2	0	0	0
DL3	3	0	1
DL4	6	0	0
DL5	1	0	0
DL6	0	0	0
DL7	2	0	1
DL9	7	0	0
DL10	5	0	0
DL11	14	0	0
DL12	6	0	0
DL13	0	0	0
DL15	11	0	1
DL16	8	0	0
DL17	24	0	0
L2	17	0	0
L5	26	1	0
L6	3	0	0

Table I.1.17 Heritage Welsh speaker narratives - agreement between numerals and nouns

	native-like agreement pattern numeral+singular noun	non-native agreement pattern numeral+plural noun
A1	0	0
DC14	2	0
DL1	1	0
DL2	0	0
DL3	0	0
DL4	1	0
DL5	1	0
DL6	0	2('dau brogau,' 'chwech brogau')
DL7	0	0
DL9	0	0
DL10	0	0
DL11	1	1('naw ffrogiau fach')
DL12	1	0
DL13	0	0
DL15	0	1('dau frogau')
DL16	0	1('saith llyffantod')
DL17	0	0
L2	0	0
L5	0	0
L6	1	0

Table I.1.18 Heritage Welsh speaker narratives - agreement patterns in analytic constructions, present and imperfect tenses of bod-periphrasis

	Native-like Agreement:				Non-native Agreement:			
	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects
A1	35	0	1	15	0	0	0	0
DC14	24	3	1	6	0	0	0	0
DL1	70	0	3	16	0	0	0	0
DL2	0	0	0	0	0	0	0	0
DL3	43	2	6	37	0	0	0	0
DL4	51	5	2	17	0	0	1(maen gwenyn)	0
DL5	22	3	1	12	0	0	1(maen gwenyn)	0
DL6	17	2	0	1	0	0	0	0
DL7	21	1	1	14	0	0	0	0
DL9	33	0	7	20	0	0	0	0
DL10	15	4	1	1	0	0	0	4(mae hw)
DL11	25	1	6	4	0	0	0	0
DL12	29	3	5	23	0	0	0	0
DL13	0	2	0	0	0	0	0	0
DL15	21	0	0	14	0	0	0	0
DL16	21	1	1	22	0	0	0	0
DL17	30	0	1	12	0	0	0	0
L2	46	1	2	26	0	0	0	0
L5	35	3	4	19	0	0	0	0
L6	29	2	2	17	0	0	0	0

Table I.1.19 Heritage Welsh speaker narratives - agreement patterns in synthetic constructions, inflected lexical verbs, all tenses

	Native-like Agreement:				Non-native agreement:			
	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects
A1	4	0	0	2	0	0	0	0
DC14	0	1	0	0	0	0	0	0
DL1	0	0	0	0	0	0	0	0
DL2	0	0	0	0	0	0	0	0
DL3	3	0	0	5	0	0	0	0
DL4	0	0	0	0	0	0	0	0
DL5	0	0	0	0	0	0	0	0
DL6	0	0	0	0	0	0	0	0
DL7	29	0	0	0	0	0	0	0
DL9	10	1	1	2	0	0	0	0
DL10	0	0	0	0	0	0	0	0
DL11	2	0	1	2	0	0	0	0
DL12	0	0	0	0	0	0	0	0
DL13	0	0	0	0	0	0	0	0
DL15	0	0	0	0	0	0	0	0
DL16	0	0	0	0	0	0	0	0
DL17	0	0	0	0	0	0	0	0
L2	0	0	0	1	0	0	0	0
L5	3	0	0	0	0	0	0	0
L6	0	0	0	0	0	0	0	0

Appendix I.2 Tables of the Baseline Welsh Data

Table I.2.1 Baseline Welsh speaker narratives - times and word counts for each narrative sample

	Word Count	Seconds	Minutes	Words Per Minute
CA1	235	164	2.733333333	85.97560976
CA2	478	165	2.75	173.8181818
CA4	424	179	2.983333333	142.122905
CA5	527	298	4.966666667	106.1073826
CA6	637	329	5.483333333	116.1702128
CA7	383	265	4.416666667	86.71698113
CGA1	777	412	6.866666667	113.1553398
CGA2	965	441	7.35	131.292517
CGA3	1551	737	12.28333333	126.2686567
CGA4	495	297	4.95	100
CGA5	361	179	2.983333333	121.0055866
CPPA	1004	523	8.716666667	115.1816444
CC1	296	109	1.816666667	162.9357798
CC3	382	193	3.216666667	118.7564767
CC5	291	143	2.383333333	122.0979021
CC6	324	125	2.083333333	155.52
CGB1	727	328	5.466666667	132.9878049
CGB2	1363	676	11.26666667	120.9763314
CGB3	571	285	4.75	120.2105263
CGB4	933	433	7.216666667	129.2840647

Table I.2.2 Baseline Welsh speaker narratives - total pauses in each narrative

	Filled Pauses	1 Second Pauses	2 Second Pauses	3 Second Pauses	4 Second Pauses
CA1	31	19	8	0	0
CA2	14	16	8	0	0
CA4	12	21	1	0	0
CA5	14	28	22	0	0
CA6	28	32	18	0	0
CA7	13	26	17	0	0
CGA1	15	30	26	1	0
CGA2	28	51	41	0	0
CGA3	4	76	38	0	0
CGA4	1	28	36	1	0
CGA5	0	25	17	0	0
CPPA	120	37	13	0	0
CC1	1	11	11	0	0
CC3	3	18	26	0	0
CC5	0	20	7	0	0
CC6	3	7	9	0	0
CGB1	8	41	17	1	0
CGB2	4	66	32	4	0
CGB3	14	30	22	0	0
CGB4	0	57	31	1	0

Table I.2.3 Baseline Welsh speaker narratives - components of fluency, narrative totals

	Retraces	Corrections	Embeddings	Vocabulary Recall Delay
CA1	2	1	8	5
CA2	2	0	17	4
CA4	3	2	10	3
CA5	8	4	19	4
CA6	12	6	19	9
CA7	11	7	9	7
CGA1	2	2	43	1
CGA2	23	6	18	3
CGA3	7	0	77	1
CGA4	0	0	21	0
CGA5	1	1	11	1
CPPA	20	9	48	2
CC1	2	2	5	2
CC3	2	2	5	2
CC5	0	1	9	0
CC6	4	2	13	1
CGB1	7	6	23	3
CGB2	2	2	49	3
CGB3	13	3	11	1
CGB4	4	7	25	1

Table I.2.4 Baseline Welsh speaker narratives - total utterances in each narrative; fluency measures per utterance

	Utterances	MLU	Embeddings Per Utterance	Vocabulary Recall Delay Per Utterance	Retraces Per Utterance	Corrections Per Utterance
CA1	41	5.73171	0.195121951	0.12195122	0.048780488	0.024390244
CA2	30	15.93333	0.566666667	0.133333333	0.066666667	0
CA4	32	13.25	0.3125	0.09375	0.09375	0.0625
CA5	57	9.24561	0.333333333	0.070175439	0.140350877	0.070175439
CA6	66	9.65152	0.287878788	0.136363636	0.181818182	0.090909091
CA7	48	7.97917	0.1875	0.145833333	0.229166667	0.145833333
CGA1	62	12.53226	0.693548387	0.016129032	0.032258065	0.032258065
CGA2	109	8.85321	0.165137615	0.027522936	0.211009174	0.055045872
CGA3	117	13.25641	0.658119658	0.008547009	0.05982906	0
CGA4	66	7.5	0.318181818	0	0	0
CGA5	43	8.39535	0.255813953	0.023255814	0.023255814	0.023255814
CPPA	140	7.17143	0.342857143	0.014285714	0.142857143	0.064285714
CC1	25	11.84	0.2	0.08	0.08	0.08
CC3	47	8.12766	0.106382979	0.042553191	0.042553191	0.042553191
CC5	28	10.39286	0.321428571	0	0	0.035714286
CC6	20	16.2	0.65	0.05	0.2	0.1
CGB1	68	10.69118	0.338235294	0.044117647	0.102941176	0.088235294
CGB2	103	13.23301	0.475728155	0.029126214	0.019417476	0.019417476
CGB3	63	9.06349	0.174603175	0.015873016	0.206349206	0.047619048
CGB4	90	10.36667	0.277777778	0.011111111	0.044444444	0.077777778

Table I.2.5 Baseline Welsh speaker narratives - total counts of aspirate mutation (following lexical triggers)

	aspirate mutation applied instead of another expected mutation	unexpected aspirate mutation (had not been triggered)	absence of expected aspirate mutation	aspirate mutation where expected
CA1	0	0	0	0
CA2	0	0	0	0
CA4	0	0	3(after “gyda”)	0
CA5	0	0	2(after “gyda”)	0
CA6	0	0	3(after “a”)	0
CA7	0	0	1(after “gyda”)	0
CC1	0	0	0	0
CC3	0	0	0	0
CC5	0	0	0	0
CC6	0	0	0	0
CGA1	0	0	0	0
CGA2	0	0	0	0
CGA3	0	0	0	0
CGA4	0	0	2(after “a”), 1(after “gyda”)	1(after “a”), 1(after “ei”)
CGA5	0	0	1(after “a”)	0
CGB1	0	0	1(after “a”)	0
CGB2	0	0	1(after “a”), 1(after “â”)	0
CGB3	0	0	0	0
CGB4	0	0	0	0
CPPA	0	0	2(after “a”)	1(after “ei”)

Table I.2.6 Baseline Welsh speaker narratives - total counts of the nasal mutation (following lexical triggers)

	nasal mutation applied instead of another expected mutation	unexpected nasal mutation (no trigger)	absence of expected nasal mutation	nasal mutation where expected
CA1	0	0	0	0
CA2	0	0	0	0
CA4	0	0	0	0
CA5	0	0	0	0
CA6	1/AM (after “a”)	0	0	0
CA7	0	0	0	0
CC1	0	0	1(after “yn”)	0
CC3	0	0	0	0
CC5	0	0	0	0
CC6	0	0	0	0
CGA1	0	0	1(after “yn”)	0
CGA2	0	0	0	0
CGA3	0	0	0	2(after “yn”), 2(after “fy”)
CGA4	0	0	0	3(after “yn”)
CGA5	0	0	1(after “yn”)	0
CGB1	0	0	0	0
CGB2	0	0	0	3(after “yn”), 1(after “fy”)
CGB3	0	0	0	0
CGB4	0	0	0	2(after “yn”) 2(after “fy”)
CPPA	0	0	0	2(after “yn”)

Table I.2.7 Baseline Welsh speaker narratives - total counts of soft mutation triggered by syntactic/grammatical context

	unexpected soft mutation (no trigger)	absence of expected soft mutation	soft mutation where expected
CA1	2	2	5
CA2	2	1	2
CA4	0	0	0
CA5	0	5	1
CA6	0	1	0
CA7	1	2	0
CC1	0	1	5
CC3	0	0	0
CC5	0	0	0
CC6	0	10	0
CGA1	3	2	11
CGA2	1	0	3
CGA3	7	3	9
CGA4	1	0	1
CGA5	0	0	2
CGB1	1	1	2
CGB2	4	1	11
CGB3	0	0	0
CGB4	1	1	6
CPPA	0	0	5

Table I.2.8 Baseline Welsh speaker narratives - total counts of soft mutation triggered by the feminine gender context (nouns after the article and adjectives after the noun)

	unexpected soft mutation (no trigger)	absence of expected soft mutation	soft mutation where expected
CA1	0	2	0
CA2	0	0	3
CA4	1	3	7
CA5	3	7	11
CA6	1	3	5
CA7	1	0	3
CC1	0	0	6
CC3	1	1	8
CC5	2	1	9
CC6	0	1	1
CGA1	3	2	20
CGA2	2	0	21
CGA3	4	0	12
CGA4	1	0	4
CGA5	0	0	3
CGB1	1	0	12
CGB2	4	2	18
CGB3	1	0	2
CGB4	3	0	15
CPPA	5	1	21

Table I.2.9 Baseline Welsh speaker narratives - total counts of soft mutation after lexical triggers

	soft mutation applied instead of another expected mutation	unexpected soft mutation (no trigger)	absence of soft mutation	soft mutation where expected
CA1	1/AM	2	1	6
CA2	2/NM	2	3	13
CA4	0	0	6	14
CA5	0	5	3	10
CA6	2/NM	1	9	18
CA7	0	0	4	8
CC1	0	2	2	1
CC3	0	0	5	13
CC5	1/N	0	1	6
CC6	0	0	4	16
CGA1	1/AM, 1/NM	3	11	31
CGA2	0	0	5	14
CGA3	2/AM, 1/NM	5	15	61
CGA4	0	1	2	21
CGA5	3/NM,2/AM	1	6	18
CGB1	1/AM	0	1	21
CGB2	0	1	3	71
CGB3	0	0	2	20
CGB4	0	1	3	38
CPPA	1/AM,1/NM	0	5	60

Table I.2.10 Baseline Welsh speaker narratives - total counts of the aspectual particles/markers, with or without a preceding form of bod 'to be'

	yn - progressive aspect	wedi - perfective aspect
CA1	3	0
CA2	39	2
CA4	24	6
CA5	14	4
CA6	32	12
CA7	16	6
CC1	26	1
CC3	34	2
CC5	7	0
CC6	31	2
CGA1	14	10
CGA2	65	17
CGA3	57	33
CGA4	17	2
CGA5	9	2
CGB1	31	15
CGB2	76	15
CGB3	43	9
CGB4	43	9
CPPA	42	15

Table I.2.11 Baseline Welsh speaker narratives - total counts of the present tense of bod 'to be' (mae)

	<i>mae</i> with <i>yn</i> , progressive aspect	<i>mae</i> with <i>wedi</i> , perfective aspect	existential/descriptive <i>mae</i>	<i>mae</i> with missing aspect marker (divergent from expected norm)
CA1	0	0	0	0
CA2	21	1	5	3
CA4	19	5	9	2
CA5	1	0	5	0
CA6	20	8	6	1
CA7	9	1	4	1
CC1	23	0	11	1
CC3	26	1	11	0
CC5	1	0	15	0
CC6	26	1	4	1
CGA1	2	1	2	1
CGA2	47	15	28	0
CGA3	19	6	22	7
CGA4	0	0	1	0
CGA5	0	0	0	0
CGB1	21	7	17	1
CGB2	10	4	16	0
CGB3	38	8	9	3
CGB4	10	5	25	1
CPPA	11	0	2	1

Table I.2.12 Baseline Welsh speaker narratives - total counts of the imperfect tense of bod 'to be' (oedd)

	<i>oedd</i> with <i>yn</i> , progressive aspect	<i>oedd</i> with <i>wedi</i> , perfective aspect	existential/descriptive <i>oedd</i>	<i>oedd</i> with missing aspect marker (divergent from expected norm)
CA1	4	0	4	2
CA2	0	0	0	0
CA4	0	0	0	0
CA5	1	2	5	0
CA6	1	1	1	0
CA7	4	1	3	1
CC1	0	0	0	0
CC3	0	0	0	0
CC5	2	0	1	0
CC6	0	0	0	0
CGA1	9	3	7	2
CGA2	2	0	1	0
CGA3	23	15	19	5
CGA4	10	0	11	2
CGA5	4	2	11	0
CGB1	1	0	0	0
CGB2	21	7	18	0
CGB3	0	0	0	0
CGB4	3	2	12	0
CPPA	15	6	9	0

Table I.2.13 Baseline Welsh speaker narratives - other forms of *bod* 'to be' (besides the present and imperfect tenses, see tables I.2.11 and I.2.12)

	interrogative and negative existential <i>bod</i> - <i>oes/does dim</i>	copula - <i>yw</i> or <i>oedd</i>	relative 'that' - <i>bod</i>	relative 'who, which' - <i>sy(dd)</i>	relative with copula construction - <i>mai/taw</i>	inflected past tense of <i>bod</i> (any person and number)	inflected future tense of <i>bod</i> (any person and number)
CA1	0	3	1	0	0	0	0
CA2	0	1	2	1	0	0	0
CA4	0	1	1	2	0	0	0
CA5	0	0	10	2	0	0	0
CA6	1	7	6	1	1	0	1
CA7	0	1	4	0	0	0	0
CC1	0	0	1	0	0	0	0
CC3	1	0	1	2	0	0	0
CC5	0	0	0	1	0	0	0
CC6	0	0	4	0	0	0	0
CGA1	0	5	6	0	2	1	0
CGA2	3	6	5	8	0	0	5
CGA3	1	5	9	7	0	0	1
CGA4	0	0	3	1	0	0	0
CGA5	0	0	1	0	0	0	0
CGB1	0	1	5	4	0	0	0
CGB2	0	8	9	3	3	0	1
CGB3	0	3	1	1	0	0	0
CGB4	0	4	2	2	0	0	0
CPPA	0	2	10	1	1	0	0

Table 1.2.14 Baseline Welsh speaker narratives - synthetic verb forms (lexical verb inflected for tense, aspect and agreement) and bod inflected for the conditional mood

	synthetic past tense	synthetic future tense	imperative forms	conditional <i>bod</i>
CA1	14	0	0	1
CA2	0	0	0	0
CA4	0	0	0	0
CA5	24	0	2	0
CA6	7	0	0	0
CA7	17	0	0	0
CC1	0	0	0	0
CC3	0	0	0	0
CC5	9	1	0	0
CC6	0	0	0	0
CGA1	40	0	0	2
CGA2	0	0	3	1
CGA3	20	3	3	2
CGA4	26	1	0	0
CGA5	14	1	2	0
CGB1	14	2	4	0
CGB2	13	0	6	0
CGB3	0	0	0	0
CGB4	9	0	1	0
CPPA	30	0	0	0

Table I.2.15 Baseline Welsh speaker narratives - instances of the null subject option in each narrative sample

	null subject after present tense of <i>bod</i> in periphrastic construction - <i>mae</i>	null subject after imperfect tense of <i>bod</i> in periphrastic construction - <i>oedd</i>	null subject with a synthetic verb form	null subject after 3 rd singular conditional form of <i>bod</i> - <i>byddai</i>
CA1	0	0	1	0
CA2	2	0	0	0
CA4	0	0	0	0
CA5	0	0	1	0
CA6	2	0	1	0
CA7	2	0	1	0
CC1	8	0	0	0
CC3	0	0	0	0
CC5	0	0	0	0
CC6	2	0	0	0
CGA1	2	1	11	2
CGA2	2	0	0	0
CGA3	3	3	0	1
CGA4	0	0	1	0
CGA5	0	1	2	0
CGB1	2	0	0	0
CGB2	2	0	0	0
CGB3	11	0	0	0
CGB4	2	0	0	0
CPPA	3	0	0	0

Table I.2.16 Baseline Welsh speaker narratives - agreement between numerals and nouns

	native-like agreement pattern numeral+singular noun	non-native agreement pattern numeral+plural noun
CA1	0	0
CA2	1	0
CA4	1	0
CA5	1	0
CA6	2	0
CA7	0	0
CC1	0	0
CC3	0	0
CC5	0	0
CC6	0	0
CGA1	0	0
CGA2	0	0
CGA3	1	0
CGA4	0	0
CGA5	0	0
CGB1	0	0
CGB2	2	0
CGB3	1	0
CGB4	2	0
CPPA	1	0

Table I.2.17 Baseline Welsh speaker narratives - agreement patterns in analytic constructions, present and imperfect tenses of bod-periphrasis

	Native-like Agreement:				Non-native Agreement:			
	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects
CA1	6	1	0	1	0	0	0	0
CA2	17	1	1	6	0	0	0	0
CA4	27	4	0	0	0	0	0	0
CA5	7	0	0	6	0	0	0	0
CA6	34	0	4	1	0	0	0	0
CA7	10	0	1	10	0	0	0	0
CC1	22	1	0	2	0	0	0	0
CC3	24	2	4	7	0	0	0	0
CC5	10	0	1	2	0	0	0	0
CC6	26	0	1	2	0	0	0	0
CGA1	15	0	0	3	0	0	0	0
CGA2	75	0	9	8	0	0	0	0
CGA3	55	2	7	28	0	0	0	0
CGA4	12	1	1	5	0	0	0	0
CGA5	13	1	0	0	0	0	0	0
CGB1	18	1	4	19	0	0	0	0
CGB2	43	2	9	16	0	0	0	0
CGB3	32	2	3	8	0	0	0	0
CGB4	30	1	6	16	0	0	0	0
CPPA	32	2	1	1	0	0	0	0

Table I.2.18 Baseline Welsh speaker narratives - agreement patterns in synthetic constructions, inflected lexical verbs, all tenses

	Native-like Agreement:				Non-native agreement:			
	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects	3 rd singular singular subject	3 rd singular coordinate subject	3 rd singular plural subject (non- pronominal)	other pronominal subjects
CA1	11	0	1	0	0	0	0	0
CA2	0	0	0	0	0	0	0	0
CA4	0	0	0	0	0	0	0	0
CA5	17	1	0	5	0	0	0	0
CA6	6	0	0	0	0	0	0	0
CA7	12	0	1	2	0	0	0	0
CC1	0	0	0	0	0	0	0	0
CC3	0	0	0	0	0	0	0	0
CC5	9	1	0	1	0	0	0	0
CC6	0	0	0	0	0	0	0	0
CGA1	20	3	0	4	0	0	0	0
CGA2	0	0	0	1	0	0	0	0
CGA3	15	0	0	5	0	0	0	0
CGA4	20	0	0	5	0	0	0	0
CGA5	10	2	0	0	0	0	0	0
CGB1	11	3	0	2	0	0	0	0
CGB2	7	1	0	4	0	0	0	0
CGB3	0	0	0	0	0	0	0	0
CGB4	6	0	0	3	0	0	0	0
CPPA	25	2	1	2	0	0	0	0

un noson oedd uh@fp bachgen bach # yn edrych # yn jar bach oedd gyn-no fo
 one evening was.3SG boy little PROG look in jar(f) little was.3SG with-him he
 One night uh@fp a little boy was, looking, in a little jar he had

ffrog # a ci bach yn # rhoi ei trwyn i fewn # nhw i-gyd i gwennu ## trwy 'r nos
 frog and dog little PROG put his nose to \in they all to smile though the night
 a frog, and a little dog, putting his nose in, them all smil[ing]. All night

mae 'r bachgen bach yn cysgu a ci yn cysgu ar y gwely bachgen bach # a
 is.3SG the boy little PROG sleep and dog PROG sleep on the bed boy little and
 the little boy sleeps and a dog sleeping on the little boy's bed, and

mae 'r ffrog yn # dod allan o 'r y jar ## wedyn mae 'n edrych ar y ffenestr
 is.3SG the frog PROG come out from the the jar then is.3SG PROG look on the window
 the frog, comes out of the jar. Then [he] looks at the window

sydd agored ## yn y bore ## edrych-odd y bachgen bach ac oedd o 'n ffeindio
 is.REL open in the morning looked-3SG the boy little and was.3SG he PROG find
 which is open. In the morning. The little boy looked and he was finding

bod # y ffrog wedi mynd tu allan # ar &g [/] wedi ar goll # mae fe 'n teimlo # [/]
 is.COMP the frog PRF go side out on PRF on missing is.3SG he PROG feel
 that, the frog had gone outside, on &g [/] missing, he feels, [/]

teimlo 'n trist lle oedd <e> # y ffrog ## mae 'n edrych yn ei sgidiau # oedd y
 feel PRED sad where was.3SG he the frog is.3SG PROG look in his shoes was.3SG the
 feels sad 'where is <he>, the frog. [He] looks in his shoes, the

ci ar rhoi ei ben # &i <in> [/] yn y jar ## a mae ddim yn gallu ffeindio 'r ffrog yn
 dog on put his \head in the jar and is.3SG NEG PROG able find the frog ADV
 dog was about to put his head, &i <in> [/] in the jar. And [he] cannot find the frog

unlle ## mae 'n edrych tu allan o 'r ffenestr yn alw # ond o ddim yn dod ##
 anywhere is.3SG PROG look side out from the window PROG \call but he NEG PROG come
 anywhere. [He] looks outside of the window calling, but he [does] not come.

yn &sy [/] aeth y # ci yn syrthi[o] tu allan i-lawr i 'r [/] i 'r uh@fp ddear o-dan
 PROG went.3SG the dog PROG fall side out down to the to the \earth(f) under
 [/] the dog went, falling outside down to the [/] to the uh@fp ground under

y ffenestr ## ac y bachgen bach yn dod allan a mae 'r jar wedi torri ## mae 'r
 the window and the boy little PROG come out and is.3SG the jar PRF break is.3SG the
 the window. And the little boy coming out and the jar has broken. The

ci yn # licio # uh@fp <cheek> y [/] y bachgen bach ## mae 'r bachgen bach yn
 dog PROG like the the boy little is.3SG the boy little PROG
 dog likes, uh@fp the [/] the little boy's <cheek>. The little boy

edrych yn dipyn-bach yn [/] yn flin ## a aeth-on nhw tu allan o 'r # tŷ # i-lawr
 look PRED \little-bit PRED PRED \angry and went-3PL they side out of the house down
 looks a little bit [/] angry. And they went outside of the, house, down

i 'r cae # ac alw eto ## lle wyt ti lle wyt ti? ## ac aeth-on nhw lawr # i 'r
 to the field and \call again where is.2SG you where is.2SG you and went-3PL they down to the
 to the field, and call again. 'Where are you where are you?' And they went down, to the

uh@fp um@fp &j ## i 'r coedwig ## alw aeth # y bachgen bach yn y alw i-lawr
 -- to the forest(f) \call went.3SG the boy little PROG the \call down
 uh@fp um@fp &j. To the forest. Calling the little boy went, calling down

yn y twll # yn y ddeuer ## ac y ci wedi mynd # yn edrych ar y <beehive> ## a
 in the hole in the \earth(f) and the dog PRF go PROG look on the and
 in the hole, in the ground. And the dog having gone, looking at the <beehive>. And

chwarae ## yn neidio ## ond aeth y ## anifail fach wedi dod tu allan o 'r twll
 play PROG jump but went.3SG the animal(m) \little PRF come side out of the hole
 playing, jumping. But the. Little animal went having come outside of the hole

yn flin yn deud # be wyt ti 'n neud yn alw yn tŷ fi # mae 'r bachgen
 PRED \angry PROG say where is.2SG you PROG do PROG \call in house I is.3SG the boy
 anygry saying, 'what are you doing calling in my house', the little boy

bach yn edrych yn dipyn-bach wedi <shocked> ## mae &ba ci dal yn edrych #
 little PROG look PRED \little-bit PRF is.3SG dog continue PROG look
 looks a little bit <shocked>. A &ba dog is still looking,

ac yn alw ac yn # at y [/] at y <beehive> ## ac wedyn syrthio y # <beehive> i-lawr i #
 and PROG \call and PROG to the to the and then fall the down to
 and calling and, to the [/] to the <beehive>. And then the, <beehive> fall[s] down to,

ac mae 'r <bees> holl wedi dod tu allan a maen nhw 'n flin rwan ## mae 'r
 and is.3SG the all PRF come side out and is.3PL they PRED \angry now is.3SG the
 and all the <bees> have come out and they are angry now, the

bachgen bach # wedi ffeindio coed # ac mae o wedi ffeindio twll # yn [/] yn y coed a
 boy little PRF find trees and is.3SG he PRF find hole in in the trees and
 little boy, has found treed, and he has found a hole, in [/] in the trees and

mae e wedi # alw i mewn a mae 'n edrych # i fewn i 'r twll # a mae 'na #
 is.3SG he PRF \call to in and is.3SG PROG look to \in to the hole and is.3SG there
 he has, called in and [he]'s lookig, into the hole, and there's,

<owl> wedi dod allan a &we mae 'r bachgen [/] bachgen bach wedi syrthio i-lawr # a &be
 -- PRF come out and is.3SG the boy boy little PRF fall down and
 an <owl> come out and &we the little boy [/] boy has fallen down, and &be

holl y <bees> wedi # mynd maen nhw 'n ## <flying across> ## mae 'r ci bach yn
 all the PRF go is.3PL they PROG is.3SG the dog little PROG
 the all <bees> have, gone they are. <Flying across>. The little boy is
 rhedeg rhedeg # mae o 'n # ddim yn ## mm@fp [/] mae o xxx ddim # um@fp <scared> nawr
 run run is.3SG he PROG NEG PRED is.3SG he NEG now
 running running, he, doesn't. mm@fp he xxx isn't, um@fp <scared> now.

mae bachgen yn rhedeg i-ffwrdd o 'r # <owl> ## wedyn mae o 'n # mynd i #
 is.3SG boy PROG run away from the then is.3SG he PROG go to
 A boy is running away from the, <owl>. Then he, goes to,

dringo # i-fyny 'r um@fp beth mae 'n edrych fel wal # ond # mae 'n alw eto am
 climb up the what is.3SG PROG look like wall but is.3SG PROG \call again for
 climb, up the um@fp what looks like a wall, but, [he] calls again for

y ffrog ## a mae 'r ci bach yn edrych yn # um@fp mae o 'n mynd neidio # yn
 the frog and is.3SG the dog little PROG look PRED is.3SG he PROG go jump ADV
 the frog. And the little dog looks, um@fp he goes jumping,

fach # a maen nhw ##uh@fp [/] mae 'n wedi ffeindio uh@fp <deer> efo <antlers> ## mae
 \little and is.3PL they is.3SG PROG PRF find with is.3SG
 little, and they. Uh@fp [he] has found uh@fp a <deer> with <antlers>.

o # xxx # wedyn maen nhw 'n rhedeg i-ffwrdd # rhedeg i-lawr a maen nhw ddim yn
 he then is.3PL they PROG run away run down and is.3PL they NEG PROG
 He, xxx, then they run away, run down and they aren't

edrych ble maen nhw 'n mynd # a yn syrthio i-lawr lawr <down> xxx # [/] <down>
 look where is.3PL they PROG go and PROG fall down down
 looking where they are going, and falling down dow <down> xxx, [/] <down>

y <bank> # i 'r dŵr ## mm@fp ## mae o 'n neud <splash> mawr ## a mae 'n
 the to the water is.3SG he PROG make big and is.3SG PROG
 the <bank>, to the water. Mm@fp. It makes a big <splash>. And [he]

gwrando yn ## [/] mae &g um@fp yn edrych fel <tree trunk> mae 'n [/] mae gyn-o &f
 listen ADV is.3SG PROG look like is.3SG PROG is.3SG with-him
 listens. [/] [It] &g um@fp looks like a <tree trunk> [it]'s [/] he has

[/] mae o 'n gwrando mae 'n swn mae o 'n [/] mae o gwennu ## mae 'n
 is.3SG he PROG listen is.3SG PRED sound is.3SG he PROG is.3SG he smile is.3SG PROG
 [/] he listens [it]'s a sound he is [/] he is smiling. [He]'s

[/] mae o 'n deud y ci bach # bod yn ddistaw mae e 'n # xxx <bees> bach
 is.3SG he PROG say the dog little be.INF PRED \silent is.3SG he PROG little
 [/] he says the little dog, be quiet he is, xxx little <bees>

i-fyny 'r ac xxx yn deud <sh> ## a mae 'n edrych i fewn i 'r ## [/] mewn ac #
 up the and PROG say and is.3SG PROG look to \in to the in and
 up the and xxx says <sh>. And [he] looks inside the. [/] In and,

um@fp tu ôl y <tree trunk> # a maen nhw 'n ffeindio # y ffrog efo ffrog arall
 side track the and is.3PL they PROG find the frog with frog other
 um@fp behind the <tree trunk>, and they find, the frog with another frog

<mister> a <missus> # ffrog # a maen nhw 'n gwennu maen nhw 'n hapus achos
 -- and frog and is.3PL they PROG smile is.3PL they PRED happy because
 <Mr.> and <Mrs.>, frog, and they are smiling they are happy because

maen nhw 'n # efo i-gilydd ## a maen nhw 'n gweld lot o babis bach ## a maen
 is.3PL they PRED with each-other and is.3PL they PROG see many of babies little and is.3PL
 they are, together. And they see a lot of little babies. And

nhw 'n # &gw [/] maen nhw 'n gyd yn gwennu a mae o # [/] rwan mae 'r # bachgen
 they PROG is.3PL they PRED all PROG smile and is.3SG he now is.3SG the boy
 they, &gw [/] they all are smiling and he, [/] now the, little boy

bach a ffrog bach [/] maen nhw [/] mae o 'n deud <ta-ta> # yn deud diolch yn
 little and frog little is.3PL they is.3SG he PROG say PROG say thanks ADV
 and little frog [/] they [/] he says <ta ta>, says 'thanks a

fawr # a mynd yn ôl rwan ## wedyn mae 'n # mam <mommy> ffrog a <daddy> ffrog
 \big and go in track now then is.3SG PROG mother frog and frog
 lot', and goes back now. Then, mother <mommy> frog and <daddy> frog

a 'r # babis bach <nest>-o ar <top> y <tree trunk save> un # mae o yn galw # o
 and the babies little -INF on the one is.3SG he PROG call from
 and the, little babies <nest> on <top> of the <tree trunk save> one. He calls, from

dan y <tree trunk> # ti wedi anghofio fi ## <k>
 under the you PRF forget I
 under the <tree trunk>, 'you have forgotten me.' <K>.

uh@fp uh@fp mae bachgen bach a ci yn yr ystafell wely uh@fp mae uh@fp ffrog
 is.3SG boy little and dog in the room(f) \bed is.3SG frog
 Uh@fp uh@fp a little boy and a dog are in the bedroom uh@fp there's a uh@fp frog

yn y botel # um@fp # &m mae 'r bachgen bach yn cysgu yn y gwely a mae 'r
 in the \bottle(f) is.3SG the boy little PROG sleep in the bed and is.3SG the
 in the bottle, um@fp, &m the little boy is sleeping in the bed and the

ci ar y gwely uh@fp mae 'r ffrog yn dod allan o 'r botel um@fp ## uh@fp #
 dog on the bed is.3SG the frog PROG come out from the \bottle(f)
 dog is on the bed uh@fp the frog comes out of the bottle um@fp. Uh#fp,

mae 'r bachgen a 'r ci wedi deffro # ble mae 'r ffrog? ## um@fp maen nhw 'n
 is.3SG the boy and the dog PRF wake where is.3SG the frog is.3PL they PROG
 the boy and the dog have woken up, where is the frog? Um@fp they

uh@fp [/] maen nhw 'n edrych yn yr esgid # um@fp yn y botel # pob-man # um@fp #
 is.3PL they PROG look in the shoe in the \bottle every-where
 uh@fp they are looking in the shoe, um@fp in the bottle, everywhere, um@fp,

maen nhw 'n uh@fp edrych uh@fp tu fas i 'r ffenest # um@fp ## mae 'r ci wedi
 is.3PL they PROG look side out to the window is.3SG the dog PRF
 they are uh@fp looking uh@fp outside the window, um@fp. The dog has

cwympo o 'r ffenest â botel ar ei wyneb # um@fp ## mae 'r botel wedi torri
 fall from the window with \bottle on his face is.3SG the \bottle PRF break
 fallen from the window with a bottle on his face, um@fp. The bottle has broken

mae 'r um@fp [/] mae 'r bachgen bach yn [/] yn cwtsio 'r ci ## uh@fp nawr te maen
 is.3SG the is.3SG the boy little PROG PROG hug the dog now then is.3PL
 the um@fp [/] the little boy is [/] is hugging the dog. Uh@fp now then they

nhw mas yn y goedwig mae 'r bachgen bach yn ## [/] yn ## uh@fp <forgotten the word for
 they out in the \forest(f) is.3SG the boy little PROG PROG
 are out in the forest the little boy is. Is. Uh@fp <forgotten the word for

shouting although I know> (gweiddi?) gweiddi [/] yn gweiddi um@fp [/] gweiddi mas um@fp
 shout shout PROG shout shout out
 shouting although I know> (shout?) shouting [/] is shouting um@fp [/] shouting out um@fp

a mae 'r ci yn edrych um@fp xxx ## uh@fp [/] mae 'n edrych mewn uh@fp twll
 and is.3SG the dog PROG look is.3SG PROG look in hole
 and the dog is looking um@fp xxx. Uh@fp [/] [he]'s looking in uh@fp a hole

yn y # [/] yn y daear a # mae 'r ci wedi weld # <nest of bees> (<don't worry about it>)
 in the in the earth(f) and is.3SG the dog PRF \see
 in the, [/] in the ground and, the dog has seen, <nest of bees> (<don't worry about it>)

um@fp mae 'r ci yn dringo'r coed i 'r <nest of bees> a mae 'r bachgen wedi
 is.3SG the dog PROG climb the trees to the and is.3SG the boy PRF
 um@fp the dog climbs the trees to the <nest of bees> and the boy has

weld xxx llygoden? yn y [/] yn y twll <or something like that> ## um@fp nawr # mae 'r
 \see mouse in the in the hole now is.3SG the
 seen xxx a mouse? in the [/] in the hole <or something like that>. Um@fp now, the

bachgen yn dringo y goeden ac mae 'n edrych mewn i twll yn y goeden mae
 boy PROG climb the \tree(f) and is.3SG PROG look in to hole in the \tree is.3SG
 boy is climbing the tree and [he]'s looking into a hole in the tree

'r ci yn dringo um@fp uh@fp uh@fp yn edrych ar y ## <bees nest> (cwch gwenyn?)
 the dog PROG climb PROG look on the hive bees
 the dog is climbing um@fp uh@fp uh@fp looking on the. <Bees nest> (beehive?)

gwenyn? <honeybees that's not a word I know> ## uh@fp uh@fp mae 'r bachgen wedi
 bees is.3SG the boy PRF
 bees? <honeybees that's not a word I know>. Uh@fp uh@fp the boy has

um@fp uh@fp # oh@fp [/] wedi cwmpo ## a mae uh@fp [/] mae [/] mae gwdigw yn y [/]
 -- PRF fall is.3SG is.3SG is.3SG owl in the
 um@fp uh@fp, oh@fp [/] has fallen. And uh@fp [/] [/] an owl is in the [/]

yn [/] yn y goeden a mae 'r ci yn rhedeg bant ## uum@fp uuh@fp mae 'r bachgen
 in in the \tree and is.3SG the dog PROG run away is.3SG the boy
 in [/] in the tree and the dog is running away. Uum@fp uuh@fp the boy

yn cuddio o 'r gwddihw uh@fp tu ôl i 'r graig nawr mae e wedi dringo ar
 PROG hide from the owl side track to the \rock(f) now is.3SG he PRF climb on
 is hiding from the owl uh@fp behind the rock now he has climbed on

ben uh@fp [/] ar ben y graig a ## <what's that? Don't know what that is> oh@fp (<like a
 \head on \head the \rock(f) and
 top uh@fp [/] on top of the rock and. <What's that? Don't know what that is> oh@fp (<like a

stag>) <what?> (<stag>) oh@fp <right> um@fp (<or deer>) ## mae ar ben [/] mae ar ben
 -- is.3SG on \head is.3SG on \head
 stag>) <what?> (<stag>) oh@fp <right> um@fp (<or deer>). [He]'s on top [/] [he]'s on top

y <stag># um@fp # ac um@fp #mae 'n cael um@fp hm@fp ## [/] yn cael reid ar ben y
 the and is.3SG PROG get PROG get ride on \head the
 of the <stag>, um@fp, and um@fp [he]'s getting um@fp hm@fp. [/] Getting a ride on top of the

<stag> uh@fp mae ci yn rhedeg o-flaen y <stag> # &m maen nhw 'n dod um@fp
 -- is.3SG dog PROG run before the is.3PL they PROG come
 <stag> uh@fp a dog is running in front of the <stag>, &m They come um@fp

i derfyn um@fp y glaswellt a mae 'r uh@fp [/] mae 'r ci a 'r uh@fp bachgen yn
 to \end the grass and is.3SG the is.3SG the dog and the boy PROG
 to the edge of um@fp the grass and the uh@fp [/] the dog and the uh@fp boy

cwympto i 'r [/] i 'r daear ond mae 'r <stag> wedi [/] wedi stopio ## um@fp cwmpodd y
 fall to the to the earth(f) but is.3SG the PRF PRF stop fell.3SG the
 fall to the [/] to the ground but the <stag> has [/] has stoped. Um@fp the

bachgen bach a 'r i mewn i 'r dŵr # um@fp ## mae 'r ci ar y ben y bachgen
 boy little and the to in to the water is.3SG the dog on the \head(m) the boy
 little boy fell and the into the water, um@fp. The dog is on the head of the boy

uh@fp maen nhw wedi nofio i 'r hen [/] # hen coed # um@fp # maen nhw 'n dringo 'r
 is.3PL they PRF swim to the old old trees is.3PL they PROG climb the
 uh@fp they have swum to the old, [/] old trees, um@fp they climb the

coed ## uh@fp a tu ôl i 'r coed mae dau <or> dwy ffrog a ## [/] a plant
 trees and side track to the trees is.3SG two(m) two(f) frog and and children
 trees. Uh@fp and behind the trees there are two or two frogs and. [/] And children

uh@fp y dau ffrog a # um@fp # [//] mae 'r bachgen um@fp yn # gweud um@fp <bye
 the two(m) frog and is.3SG the boy PROG say
 uh@fp the two frogs and, um@fp, [//] the boy um@fp, says um@fp <bye

bye> # a at um@fp [//] a mae 'r teulu o ffrogiau uh@fp ar ben y coed yn disgwyl
 and to and is.3SG the family of frogs on \head the trees PROG look
 bye>, and to um@fp [//] and the family of frogs uh@fp is on top of the trees looking

[//] yn edrych ar y [/] ar y bachgen a 'r ci yn mynd 'n ôl dros y [/] dros y
 PROG look on the on the boy and the dog PROG go on track over the over the
 [//] looking at the [/] at the boy and the dog going back over the [/] over the

dŵr
 water
 water.

Wel # yn y tudalen cynta mae 'na uh@fp bachgen bach yn eistedd lawr ar y stôl ac
 well in the page first is.3SG there boy little PROG sit down on the stool and
 Well, on the first page there's uh@fp a little boy sitting down on the stool and

gyda ci bach ## wel # mae fe 'n nos a maen nhw 'n eistedd yn y stafell gwely y
 with dog little well is.3SG he PRED night and is.3PL they PROG sit in the room(f) bed the
 with a little dog. Well, it's night and they are sitting in the bedroom of the

bachgen bach <dw i 'n credu> # a maen nhw 'n edrych tu mewn jar o ryw-fath a
 boy little <is.1SG PROG believe> and is.3PL they PROG look side in jar of some-sort and
 little boy <I think>, and they are looking inside a jar of some sort and

mae 'na xxx creadur # mae yna ffrog # efrog # dw i ddim yn gwybod efallai mae
 is.3SG there creature is.3SG there frog York is.1SG I NEG PROG know maybe is.3SG
 There's xxx a creature, there's a frog, a York, I don't know maybe

fe 'n enw efrog yn Cymraeg dw i ddim yn gwybod yr enw # [/] nabod yr enw ## wel #
 it PRED noun York in Welsh is.3SG I neg PROG know the noun know the noun well
 it's a noun "efrog" in Welsh I don't know the noun, [/] know the noun. Well,

mae 'r bachgen bach wedi mynd i 'r gwely # cysgu gyda 'r ci ar ei wely # lleud tu
 is.3SG the boy little PRF go to the bed sleep with the dog on his \bed moon side
 the little boy has gone to bed, sleeping with the dog on his bed, moon

allan a mae 'r uh@fp creadur 'ma # ffrog # yn um@fp dringo mas o 'r jar a mynd
 out and is.3SG the creature here frog PROG climb out of the jar and go
 outside and this uh@fp creature, frog, is um@fp climbing out of the jar and going

tuag at y llawr ## mae 'r bachgen bach yn deffro # mae 'r ci yn deffro # ac
 toward to the floor is.3SG the boy little PROG wake is.3SG the dog PROG wake and
 towards the floor. The little boy wakes up, the dog wakes up, and

yn xxx ar y uh@fp # gwely ac yn edrych ar y jar a mae 'r # wel y ffrog wedi mynd
 PROG on the bed and PROG look on the jar and is.3SG the well the frog PRF go
 xxx on the uh@fp bed and looking at the jar and the, well the frog has gone.

mae 'r jar yn wag ## uh@fp # oh@fp reit wel bachgen nawr yn um@fp gwisgo ei
 is.3SG the jar PROG empty right well boy now PROG wear his
 The jar is empty. Uh@fp, oh@fp right well [the] boy now is um@fp wearing his

dillad # um@fp # uh@fp ya@fp wel ya@fp xxx # yn rhoi boots hir 'mlaen # a dim
 clothes well PROG put boots long on and NEG
 clothes, um@fp, uh@fp ya@fp well ya@fp, xxx putting on his long boots, and not

yn xxx # ya@fp # maen nhw 'n mynd i xxx edrych am y # // yr efrog # <I'm calling it an
 PROG is.3PL they PROG go to look about the the York
 xxx-ing, ya@fp, they go to xxx look about the, the York, <I'm calling it an

efrog for lack of a better word> ## uh@fp # a mae 'r bachgen wedi mynd i 'r ffenest
 -- and is.3SG the boy PRF go to the window
 “efrog” for lack of a better word>. Uh@fp, and the boy has gone to the window

wedi xxx yn um@fp crio uh@fp i 'r uh@fp ffrog i dod 'n ôl i xxx a xxx ci bach at y
 PRF PROG cry to the frog to come in track to and dog little to the
 having xxx um@fp crying uh@fp to the uh@fp frog to come back to xxx and xxx little dog to the

ffenest a gyda fe gyda jar ar ei phen e a mae 'n gweidd[i] at uh@fp effrog i
 window and with him with jar on her \head he and is.3SG PROG shout to xxx to
 window and with him with a jar on [his] head and he's shouting at uh@fp “effrog” to

dod yn ôl efallai # mae 'n [/] dw i'm yn credu bod effrog yn deall
 come in track maybe is.3SG PROG is.3SG I NEG PROG believe is.COMP xxx PROG understand
 come back maybe, he's [/] I don't believe that an “effrog” understands

hwnna ## oh@fp # mae 'r ci bach wedi cwmpo mas o 'r ffenest a mynd tuag
 that is.3SG the dog little PRF fall out of the window and go toward
 that. Oh@fp, the little dog has fallen out of the window and gone toward

at y llawr gyda jar ar ei phen e mae 'r bachgen wedi dod mas mae 'r jar wedi
 to the ground with jar on her \head he is.3SG the boy PRF come out is.3SG the jar PRF
 the ground with a jar on [his] head the boy has come out the jar has

torri ond mae 'r ci bach yn iawn oh@fp a mae 'r bachgen bach roedd yn grac
 break but is.3SG the dog little PRED okey and is.3SG the boy little was.3SG PRED \mad
 broken but the little dog is okey oh@fp and the little boy was mad

ac yn um@fp # [/] ac yn uh@fp # xxx mae fe 'n neud xxx uh@fp ya@fp wel roedd e
 and PRED and PRED is.3SG he PROG do well was.3SG he
 and um@fp, and uh@fp xxx he's doing xxx uh@fp ya@fp well he was,

'n # dw i'n gwybod y gair yn Nghymraeg ond dw i wedi anghofio fe # <he's
 PROG is.1sg I PROG know the word in \Welsh but is.1SG I PRF forget it
 I know the word in Welsh but I have forgotten it, <he's

hugging it> # [/] cwtso fe fallai xxx nawr # maen nhw yn yr ardd a wedi cerdded
 -- hug it maybe now is.3PL they in the \garden(f) and PRF walk
 hugging it>, [/] hugging it maybe xxx now, they are in the garden and have walked

tuag at um@fp y coed xxx # um@fp # a xxx ya@fp # mae fe 'n bore nawr #
 toward to the forest and is.3SG he PRED morning now
 toward um@fp the forest xxx, um@fp, and xxx ya@fp, it's morning now,

pan deffro # uh@fp # oedd y bore wedi dod # a mae <fe> 'n uh@fp gweiddo
 when wake was.3SG the morning PRF come and is.3SG <he> PROG shout
 when waking, uh@fp, the morning had come, and <he>'s uh@fp shouting

o hyd y bachgen bach um@fp i trio ffeindio 'r ffrog # a mae 'na # hmm@fp
 from length the boy little to try find the frog and is.3SG there
 still the little boy um@fp to try to find the frog, and there's, hmm@fp

<d'ya'know> # dim gwennin ryw-beth fel 'na # <bees or> ryw-beth # <not wasps> # yn
 -- NEG bees some-thing like that some-thing PROG
 <do you know>, not bees something like that, <bees or> something, <not wasps>,

mynd yn yr awyr # dw i ddim yn gwybod xxx # ci bach yn edrych am-dan[o]
 go in the air is.1SG I NEG PROG know dog little PROG look about-him
 going in the air, I don't know xxx, little dog looking about him.

oh@fp right@fp # mae bachgen bach yn # [/] yn uh@fp # ar y # [/] y llawr ac yn crio
 -- is.3SG boy little PROG PROG on the the ground and PROG cry
 oh@fp right@fp, [the] little boy is, [/] is uh@fp, on the, [/] the ground and crying

dan i fel twll # um@fp # yn trio ffeindio 'r # wel # edrych lawr y twll fallai oedd
 under to like hole PROG try find the well look down the hole maybe was.3SG
 under [him] [in]to like a hole, um@fp, trying to find the, well, looking down the hole maybe he

e # i weld os mae 'r ffrog lawr fan 'na a mae 'r ci yn # trio cael gafael o 'r
 he to \see if is.3SG the frog down place there and is.3SG the dog PROG try get grasp of the
 was, to see if the frog is down there and the dog is, trying to get hold of the

<nest> o gwenyn # o <bees> # beth yw 'na ## um@fp # mae 'r bachgen bach wedi
 of bees of what COP that is.3SG the boy little PRF
 <nest> of bees, of <bees>. What is that? Um@fp, the little boy has

cael tipyn o sioc # mae # beth yw hwnna # <mole> neu llygoden wedi dod mas o 'r twll
 get bit of shock is.3SG what COP that or mouse PRF come out from the hole
 gotten a bit of a shock, a, what is that, <mole> or mouse has come out of the hole,

ac uh@fp # a mae 'r ci bach o-hyd yn trio cael uh@fp y <nest> # nyth # [/] nyth lawr
 and and is.3SG the dog little still PROG try get the nest nest down
 and uh@fp, and the little dog is still trying to get uh@fp the <nest>, nest, [/] nest down

o 'r # [/] o 'r coeden ## <oh> stori diflas yw e ## ah@fp # mae 'r bachgen bach
 from the from the tree(f) story miserable COP it is.3SG the boy little
 from the, [/] from the tree. Oh, it's a miserable story. Ah@fp, the little boy

wedi dringo nawr # um@fp lan y coeden fawr # a mae 'na # ya@fp twll mawr yn y coeden
 PRF climb now up the tree(f) big and is.3SG there hole big in the tree(f)
 has climbed now, um@fp up the big tree, and there's, ya@fp a big hole in the tree,

yng nghanol y coeden a mae fe'n edrych am y ffrog fan 'na ## mae 'r
 in\ \middle the tree(f) and is.3SG he PROG look about the frog place there is.3SG the
 in the middle of the tree and he's looking for the frog there. The

llygoden yn edrych &arn # [/] ar-no # bachgen bach ## mae 'r ci bach yn edrych o-hyd
 mouse PROG look at [/] at-him boy little is.3SG the dog little PROG look still
 mouse is looking at, [/] at him, a little boy. The little dog is still looking

ar y # [/] ar y nyth # <nest> # ond mae 'r nyth nawr wedi cwmpo ar y llawr a mae
on the on the nest but is.3SG the nest now PRF fall on the ground and is.3SG
on the, [/] on the nest, nest, but the nest now has fallen on the ground and

popeth yn dod mas # <bees or wasps or> beth-bynnag ## reit # reit mae 'r bachgen
everything PROG come out what-ever right right is.3SG the boy
everything is coming out, <bees or wasps or> whatever. Right, right the little boy

bach wedi cwmpo lawr o 'r # uh@fp # [/] o 'r # uh@fp coeden mawr # a mae 'na
little PRF fall down from the from the tree(f) big and is.3SG there
has fallen down from the, uh@fp, [/] from the, uh@fp big tree, and there's an

gwdihw wedi dod mas yn rhoi sioc i-ddo fe ## um@fp # a mae 'r pethau o 'r
owl PRF come out PROG put shock to-him him and is.3SG the things from the
owl come out giving him a shock. Um@fp, and the things from the

nyth # uh@fp <wasps> # gwenyn <whatever> yn # [/] yn mynd ar ôl y ci bach
nest bees PROG PROG go on track the dog little
nest, uh@fp wasps, bees <whatever>, going [/] going after the little dog

sy 'n rhedeg [i]-ffwrdd yn # uh@fp ya@fp xxx # [/] yn rhedeg [i]-ffwrdd ## um@fp
is.3SG.REL PROG run away PROG PROG run away
who is running away, uh@fp ya@fp xxx, running away. Um@fp

<ok> beth sy 'n digwydd nesa? Wel mae 'r # [/] mae 'r bachgen bach # um@fp
what is.3SG.REL PROG happen next well is.3SG the is.3SG the boy little
ok what's happening next? Well the, [/] the little boy, um@fp

yn dringo nawr # um@fp ar ben xxx creigiau # uh@fp a 'r gwdihw <ife> yn [/] yn yr
PROG climb now on \head rocks and the owl is.it? in in the
is climbing now, um@fp on top of xxx rocks, uh@fp and the owl <is it?> in [/] in the

awel [/] yn yr awyr # um@fp # a mae 'r bachgen bach yn ofni # [/] ofn gyda fe
breeze in the air and is.3SG the boy little PROG fear fear with him
breeze [/] in the air, um@fp, and the little boy is fearing, [/] he is afraid

o 'r gwdihw # <w-i 'n credu> # ond mae 'r gwdihw wedi mynd [i]-ffwrdd mae
from the owl is.1SG-I PROG believe but is.3SG the owl PRF go away is.3SG
from the owl, <I think>, but the owl has gone away

'r gwdihw ddim yn [/] wedi eistedd lawr ryw-le ar coeden ac yn edrych at y
the owl NEG PROG PRF sit down some-\where on tree and PROG look to the
the owl hasn't [/] has sat down somewhere on a tree and is looking at the

bachgen bach sy wedi ar top um@fp uh@fp # craig # ac mae <fe> 'n weiddi eto
boy little is.3SG.REL PRF on top rock and is.3SG he PROG shout again
little boy who has [] on top um@fp uh@fp, of a rock, and <he>'s shouting again

y bachgen bach # gweiddi am y # [/] am y ffrog # a 'r ci bach yn eistedd ar #
the boy little shout about the about the frog and the dog little PROG sit on
the little boy, shouting about the, [/] about the frog, and the little dog sitting on,

ar y llawr # mynd heibio y craig ## <oh golly> ## <beth yw hwn?> um@fp # wel
on the ground go past the rock(f) what COP this well
on the ground, going past the rock. <Oh golly>. What's this? Um@fp, well,

<rudolph> xxx wedi cyrraedd # <I don't know> # <antlers> # mae 'r [/] mae 'r [/] mae # 'na #
-- PRF arrive is.3SG the is.3SG the is.3SG there
<Rudolph> xxx has arrived, <I don't know>, <antlers>, the [/] the [/] there's a,

<stag> mawr wedi dod a mae 'r bachgen bach ar pen y <stag> a mae fe rhwng
big PRF come and is.3SG the boy little on head the and is.3SG he between
big <stag> come and the little boy is on top of the <stag> and he is between

<antlers> y <stag> # um@fp yn gorwedd 'na ## uh@fp # nesa mae 'r <stag> yn rhedeg
-- the PROG lie there next is.3SG the PROG run
the <antlers> of the <stag>, um@fp lying there. Uh@fp, next the <stag> is running,

um@fp mae fe 'n rhedeg i ryw-le yn # <oh dear> # um@fp # peryglus iawn #
-- is.3SG he PROG run to some-place PRED dangerous very
um@fp he's running to somewhere, <oh dear>, um@fp, very dangerous,

um@fp wrth ochr <cliff> # taw [/] mae 'r bachgen ar ben y <stag> o-hyd a mae 'r ci
-- by side REL is.3SG the boy on head the still and is.3SG the dog
um@fp beside a <cliff>, that [/] the boy is still on top of the <stag> and the little dog

bach yn rhedeg xxx gyda nhw ## maen nhw bron yn mynd dros # [/] dros y # <cliff> ##
little PROG run with them is.3PL them almost PROG go over over the
is running xxx with them. They almost go over, [/] over the, <cliff>.

<oh dear> # a mae 'r [/] mae 'r um@fp # <stag> wedi uh@fp xxx 'r bachgen lawr o
-- and is.3SG the is.3SG the PRF XXX the boy down from
<Oh dear>, and the [/] the um@fp, <stag> has uh@fp xxx the boy down from

lawr i # [/] o top ei phen hi # [/] e # a i-ddo fe xxx mae 'r bachgen cwmpo
down to from top her head she he and to.him he is.3SG the boy fall
down to, [/] from on top of her head, [/] his, and to him xxx the boy falls

i-lawr i mm@fp ryw <pond> fach # um@fp # llyn # [/] llyn bach iawn # a mae 'r ci
down to some little lake lake little very and is.3SG the dog
down to mm@fp some little <pond>, um@fp, lake, [/] very little lake, and the little dog

bach yn cwmpo hefyd a dau o nhw mynd lawr i y dŵr ## ah@fp nawr mae 'r bachgen
little PROG fall also and two of them go down to the water now is.3SG the boy
is falling also and two of them going down to the water. Ah@fp now the little boy

bach yn y dŵr gyda uh@fp ci bach a nawr oedd e # [/] oedd e ddim yn [/] oedd
little in the water with dog little and now was.3SG he was.3SG he NEG PRED was.3SG
is in the water with uh@fp [the] little dog and now he was, he was not [/]

y dŵr # dim yn # <tiff in German> ond xxx gair arall yn xxx beth arall yn dod? mae
 the water NEG PRED but word other in what other PROG come is.3SG
 the water was, not, <'tiff' in German> but xxx another word in xxx what else is coming?

'r bachgen yn eistedd yn y dŵr a mae 'r dŵr dim ond yn dod wrth top ei
 the boy PROG sit in the water and is.3SG the water nothing but PROG come by top his
 The boy is sitting in the water and the water is only coming to the top of his

uh@fp coesau fe ## a mae 'r ci bach ar ben [//] ar <ei> ben uh@fp uh@fp y bachgen
 legs he and is.3SG the dog little on \head on his \head the boy
 uh@fp legs. And the little dog is on top [//] on his head uh@fp uh@fp the little boy's.

bach ## maen nhw 'n iawn ## mae 'r <stag> wedi mynd ## oh@fp mae 'r bachgen
 little is.3PL they PROG okey is.3SG the PRF go is.3SG the boy
 They are okey. The stag has gone. Oh@fp the boy

yn dweud wrth y ci bach i dod i bod yn dawel a mae fe 'n meddwl
 PROG say to the dog little to come to is.COMP PRED \quiet and is.3SG he PROG think
 tells the little dog to come to be quiet and he thinks um@fp,

um@fp # y ffrog wedi mynd tu-fewn um@fp hen coeden sydd ar y daear [//] ar y
 the frog PRF go side-\in old tree is.3SG.REL on the earth(f) on the
 the frog has gone inside um@fp an old tree which is on the earth [//] on the ground.

llawr ## uh@fp # lle ochr arall um@fp # uh@fp y coeden maen nhw 'n edrych dros y
 ground where side other the tree(f) is.3PL they PROG look over the
 Uh@fp where the other side um@fp, uh@fp of the tree they look over the tree

coeden lawr i 'r ochr arall i weld os mae 'r ffrog lawr hwnna ## wel ydyn mae
 tree down to the side other to \see if is.3SG the frog down that well is.3PL.Q is.3SG
 down to the other side to see if the frog is down that. Well yes there's

'na nid # [//] dim un ffrog ond mae dau ffrog lawr 'na # o-'n nhw wedi ffeindio nhw ##
 there NEG NEG one frog but is.3SG two frog down there was-3PL they PRF find them
 not, [//] not one frog but two frogs down there, they had found them.

<oh well> # um@fp # beth arall nawr # mae 'na # sioc neu <surprise> neu surpris gyda
 -- what other now is.3SG there shock or or surprise with
 <Oh well>, um@fp, what else now? There's a, nice shock or <surprise> or surprise with an

<"e" "i" "s"> neis i 'r bachgen bach # dim mae 'na uh@fp # mae 'na <daddy> ffrog
 -- nice to the boy little NEG is.3SG there is.3SG there frog
 <"e" "i" "s"> for the little boy, not there's uh@fp, there's a <daddy> frog

[//] mae 'na tad ffrog mae 'na mam ffrog a mae 'na teulu bach o [//] o [//] o
 is.3SG there father frog is.3SG there mother frog and is.3SG there family little of of of
 [//] there's a father-frog there's a mother-frog and there's a little family of [//] of [//] of

ffrogiau bach bach iawn # uh@fp plentyn # plant plant # <froglets> xxx um@fp # ond oh@fp
 frogs little little very child children children but
 very very little frogs, uh@fp child, [//] children [//] children, <froglets> xxx um@fp, but oh@fp,

wel fallai oedd ffrog fe # [//] ffrog y bachgen bach dim ond yn # [//] dim &p
 well maybe was.3SG frog he frog the biy little nothing but PRED NEG
 well maybe his frog was, [//] the little boy's frog only, [//] not

rhan o 'r teulu oedd e dim ond mynd i weld nhw # mae # [//] achos mae 'r
 part of the family was.3SG he nothing but go to \see them is.3SG because is.3SG the
 part of the family he was only going to see them, he's, [//] because the

bachgen yn mynd [i]-ffwrdd gyda un o 'r [//] o 'r ffrogs ar ei llaw e # bachgen yn
 boy PROG go away with one of the of the ffrogs on his hand he boy PROG
 boy is going away with one of the [//] of the frogs on his hand, [the] boy

[//] yn # dweud <bye bye> wrth y teulu o ffrogs a gobeithio mai # dim un o 'r
 PROG say to the family of frogs and [I]hope COMP NEG one of the
 [is] [//] [is], saying <bye bye> to the family of frogs and I hope that, the frog there is not one of

plentyn y cwpl 'ma yw y ffrog fan 'na # <otherwise it's kidnapping>
 child the couple here COP the frog place there
 the child[ren] of this couple, <otherwise it's kidnapping>.

ok@fp # uh@fp <right> # bachgen bach <right> # yn mynd yn nos bachgen bach a
 boy little PROG go in night boy little and
 Ok@fp, uh@fp <right>, a little boy right, becoming night a little boy and

eistedd 'da fe [//] 'da ci fe um@fp # mewn <bedroom> # a 'da golau ar-no ## bachgen
 sit with him with dog he in and with light on boy
 sitting with him [//] with a dog of his um@fp, in a <bedroom>, and with a light on.

bach yn cysgu ar y gwely 'da ci ar [//] ar y <bed> # [//] ar [//] ar [//] ar y gwely #
 little PROG sleep on the bed with dog on on the on on on the bed
 A little boy sleeping on the bed with a dog on [//] on the <bed>, on [//] on [//] on the bed,

fi gallu gweld # <hat> a ffenest ## uh@fp # y bachgen bach a ci wedi um@fp # <are
 I can see and window the boy little and dog PRF
 I can see a, <hat> and a window. Uh@fp, the little boy and a dog have um@fp, <are

awake but I can't remember what awake is> # <sorry> ## um@fp # <there's nothing I can't say

 awake but I can't remember what awake is>, <sorry>. Um@fp, <there's nothing I can't say

anything else> ## bachgen bach a 'i ci yn disgwyl mas o 'r ffenest ## y ci yn
 boy little and his dog PROG look out of the window the dog PROG
 anything else>. A little boy and his dog looking out of the window. The dog

disgwyl fel wedi cwmpo mas o 'r ffenest # bachgen wedi ## ei gwisgo <pair of boots> #
 look like PRF fall out of the window boy PRF his wear
 looking like fallen out of the window, boy has. His wearing <pair of boots>,

a fe i # <I don't know what pick up is> # <I do know these words but I can't remember> #
 and he to
 and he to, <I don't know what pick up is>, <I do know these words but I can't remember>,

[//] wedi pico lan y ci ## a fe 'n ar y &s # [//] o-dan y ffenest ## y bachgen yn
 PRF pick up the dog and he PRED on the under the window the boy PROG
 [//] has picked up the dog. And he on the &s, [//] under the window. The boy

disgwyl fel fe 'n trio canu o galw rywun wrth y coeden # lawr y # <slope> ## uh@fp
 look like he PROG try sing of call someone by the tree(f) down the
 looking like he trying to sing of call someone by the tree, down the, <slope>. Uh@fp

y bachgen bach yn disgwyl lawr ryw[beth] fel <hole> a ci yn trio neidio lan
 the boy little PROG look down some[thing] like and dog PROG try jump up
 the little boy looking down some[thing] like a <hole> and dog trying to jump up

i &rywb xxx uh@fp <beehive> ## um@fp # y <beehive> yn <hang>-o o coeden ##
 to &some[thing] the PROG INF from tree
 to &some xxx uh@fp <beehive>. Um@fp, the <beehive> hanging from a tree.

uh@fp rhywbeth dod mas o # y <hole> a bachgen yn disgwyl yn <startled> y ci
 something come out from the and boy PROG look PRED the dog
 Uh@fp something come out of, the <hole> and boy looking <startled> the dog

yn <still> trio mynd lan o # [/] lan y coeden ## y bachgen nawr lawr y coeden # [/] y
 PROG try go up from up the tree(f) the boy now down the tree the
 still trying to go up from, [/] up the tree. The boy now down the tree, [/] the

ci i-lawr # y gwaelod o 'r coeden <and he's got the beehive the bee thingy down> ## ci #
 dog down the bottom of the tree(f) dog
 dog down, the bottom of the tree <and he's got the beehive the bee thingy down>. Dog,

nawr rhedog [/] rhedeg rhedeg ryw-le ## y bachgen wedi cwmpo i-llawr a fe 'n
 now xxx run run some-where the boy PRF fall down and he PROG
 now xxx [/] run run somewhere. The boy fallen down and he

gwisgo sgidiau rhy mawr i fe ## bachgen mewn esgidiau # fe yn # trio mynd lan ryw <rock>
 wear shoes too big for he boy in shoes he PROG try go up some
 wearing shoes too big for him. Boy in shoes, of his, trying to go up some <rock>,

y bachgen wedi &cl uh@fp [/] wedi garw uh@fp # <I can't remember what is get up to> #
 the boy PRF PRF rough
 yhe boy &cl-en uh@fp[/] rough -ed uh@fp, <I can't remember what is to get up to>,

<right> y ci lawr y gwaelod ## <I have got no idea what the boy's doing> <ah right> #
 the dog down the bottom
 <right> the dog down the bottom. <I have got no idea what the boy's doing> <ah right>,

<well I can see what he's doing but I can't say it in Welsh> # uh@fp y ci a y bachgen
 --- the dog and the boy
 <well I can see what he's doing but I can't say it in Welsh>, uh@fp the dog and the boy

yn disgwyl fel nhw 'n mynd i mynd dros y <cliff> # nhw wedi cwmpo # nhw mewn
 PROG look like they PROG go to go over the they PRF fall they in
 looking like they're going to go over the <cliff>, they [have] fallen, they [are] in

dŵr # <but> nhw yn saff ## um@fp # bachgen yn gweud i 'r ci i [/] i bod dawel ##
 water they PRED safe boy PROG say to the dog to to is.COMP \quiet
 water, <but> they safe. Um@fp, boy saying to the dog to [/] to be quiet.

y bachgen yn <still> cael [/] cael um@fp y <boots> sy arno yn y ci a fe yn
 the boy PROG get get the is.3SG.REL xxx the dog and he PROG
 The boy still getting [/] getting um@fp the <boots> which are on him xxx the dog and him

trio mynd dros ryw coeden beth wedi <which has> [/] wedi cwmpo i 'r llawr ## um@fp
 try go over some tree what PRF PRF fall to the ground
 trying to go over some tree what <which has> [/] fallen to the ground. Um@fp

y bachgen a ci wedi ffeindio dwy ffrog ## y bachgen a 'i ci <ah> ffrogs
 the boy and tree PRF find two(f) frog(m) the boy and his dog frogs
 the boy and dog having found two frogs. The boy and his dog <ah> frogs

yn cael ffrog-s babi # <baby frogs> ## uh@fp # y ci a bachgen disgwyl fel nhw
 PROG get frogs baby the dog and boy look like they
 getting baby frogs, <baby frogs>. Uh@fp, the dog and boy looking like they

'n nawr mynd gartre ## a nhw 'n mynd ffrog 'da nhw uh@fp <they are taking a frog
 PROG now go home and they PROG go frog with they
 now going home. And they going a frog with them uh@fp <they are taking a frog

with them> ## y ffrog-s yn eistedd ar y coeden # wedi cwmpo coeden y [/] <fallen>
 the frog-xxx PROG sit on the tree(f) PRF fall tree the
 with them>. The frogs sitting on the tree, tree fallen the [/] <fallen>

coeden <and that's it>

tree

tree <and that's it>

wel y llun gynta sy fan hyn # mae e 'n nos a mae 'na bachgen
 well the picture(m) \first is.3SG.REL place this is.3SG he PRED night and is.3SG there boy
 Well the first picture which is here, it's night and there's a little boy

bach wrth waelod ei wely ## ac um@fp ## mae 'na wydrir # [//] wydr o 'i flaen e neu
 little by \bottom his \bed and is.3SG there xxx \glass of his \front he or
 by the bottom of his bed. And um@fp. There's, [//] glass in front of him or

llestr o 'i flaen e # ac yn y llestr # mae 'na froga ## ac ar ben y llestr
 vessel from his \front he and in the vessel is.3SG there \frog and on \head the vessel
 a vessel in front of him, and in the vessel, there's a frog. And on top of the vessel

mae 'na gi bach 'w i ddim yn siwr beth mae 'r ci yn trio gwneud ## ond
 is.3SG there \dog little is.1SG I NEG PRED sure what is.3SG the dog PROG try do but
 there's a little dog I'm not sure what the dog is trying to do. But

w i 'n credu bod y broga yn berffaith ddiogel ## nawr 'te # yn yr ail
 is.1SG I PROG believe is.COMP the frog PRED \perfect \safe now then in the second
 I believe that the frog is perfectly safe. Now then, in the second

lun mae 'r bachgen wedi mynd i 'r gwely mae 'n i tynnu 'r dillad # ac mae
 \picture is.3SG the boy PRF go to the bed is.3SG PROG to pull the clothes and is.3SG
 picture the boy has gone to bed he's pulling the clothes, and the

'r ci yn cysgu ar ben y gwely gyda 'r bachgen ## ac chimod beth mae 'r broga
 the dog PROG sleep on \head the bed with the boy and you.know what is.3SG the frog
 dog is sleeping on top of the bed with the boy. And you know what the frog

'di neud # [//] mae 'r broga wedi dringo allan o 'r llestr ## yn y drydedd # mae 'r bachgen
 PRF do is.3SG the frog PRF climb out of the vessel in the \third is.3SG the boy
 has, [//] the frog has climbed out of the vessel. Yn the third, the boy

a 'r ci wedi dihuno # ac yn edrych ar y llestr a gweld ei bod e 'n wag #
 and the dog PRF wake and PROG look on the vessel and see his is.COMP he PRED \empty
 and the dog have woken up, and looking at the vessel and seeing that it's empty,

does dim broga i weld yn unman ## 'w i 'n credu bod nhw 'n
 is.3SG.NEG.INDF NEG frog to \see ADV anywhere is.1SG I PROG believe is.COMP they PROG
 there's no frog to be seen anywhere. I believe that they're

pendroni i ble aeth y broga # wel y bore 'di hwn oherwydd mae 'r creadur
 worry to where went.3SG the frog well the morning PRF this because is.3SG the creature
 worrying where the frog went, well the morning after this because the creature

wedi diflannu erbyn hyn mae'r lle wedi goleuo <so> yn y bore mae hwn
 PRF disappear by now is.3SG place PRF lighten in the morning is.3SG this
 has disappeared now the place has lightened <so> in the morning this is

sen i 'n meddwl ## le mae 'r broga gawn ni weld nawr ## maen
 be.1SG.COND I PROG think \where is.3SG the frog \get.1PL.FUT we \see now is.3PL
 I'd think. Where's the frog we'll see now. They

nhw chwilio ym bobman am y broga 'ma ## mae pethau 'di cael eu # troi wyneb
 they search in \everywhere for the frog here is.3SG things PRF get their turn face
 are searching everywhere for this frog. Things have been, turned

yn waered # y dillad wedi cael eu hysgwyd ## na dim sôn am y broga ## a nawr
 PRED \descent the clothes PRF get their \shake no NEG talk about the frog and now
 upside down, the clothes have been shaken. No no sign of the frog. And now

mae 'r ddau 'n edrych drwy 'r ffenest # a mae 'r ci wedi dodi ei ben yn y
 is.3SG the \two(m) PROG look through the window and is.3SG the dog PRF put his \head in the
 the tw are looking through the window, and the dog has put his head in the

llestr a mae 'r bachgen yn gweiddi ar y stryd # siwr-o-fod yn gweiddi yn
 vessel and is.3SG the boy PROG shout on the street probably PROG shout PROG
 vessel and the boy is shouting on the street, probably shouting asking

gofyn am y broga maen nhw ## a peth nesa mae 'r ci 'di cwmpo o 'r ffenest
 ask about the frog is.3PL they and thing next is.3SG the dog PRF fall from the window
 about the frog they are. And next thing the dog has fallen from the window.

â 'r llestr am ei ben o-hyd ## ac wrth guro i-llawr <wrth gwrs> mae 'r llestr
 with the vessel about his \head still and as \beat down <by course> is.3SG the vessel
 With the vessel still about his head. And while knocking down <of course> the vessel

wedi torri [/] y gwydr wedi torri yn xxx # a 'r bachgen wedi neidio 'o 'r ffenest #
 PRF break the glass PRF break PRED and the boy PRF jump from the window
 has broken [/] the glass has broken in xxx, and the boy has jumped from the window,

a dal # y ci bach a mae 'r ci bach yn amlwg yn iawn oherwydd mae e
 and catch the dog little and is.3SG the dog little ADV obvious PRED okey because is.3SG he
 and caught, the little dog a the little dog is obviously okey because he's

'n llio boch y bachgen bach ## xxx pan maen nhw mynd i 'r cae erbyn hyn ac yn
 PROG lick cheek the boy little when is.3PL they go to the field by this and PROG
 licking the little boy's cheek. xxx when they are going to the field now and

gweiddi y bachgen [/] yn gweiddi galw 'r broga <siwr o fod> # a 'r ci yn ei ymyl
 shout the boy PROG shout call the frog sure of \be and the dog in his edge
 shouting the boy [/] shouting calling the frog <probably>, and the dog beside him.

a mae 'na goed brydferth ac adar i 'u gweld mas yn y 'lad rywle ond
 and is.3SG there \forest \beatiful and birds to their see out in the country(f) somewhere but
 And there's a beautiful forest and birds to be seen out in the country somewhere but

's -dim sôn am y broga 'man xxx xxx ## ah@fp # nawr 'te # maen
 is.3SG.NEG.INDF -NEG mention about the frog [any]place now then is.3PL
 there's no sign of the frog anywhere xxx xxx. Ah@fp, now then, they

nhw 'di ffeidio rhyw-beth # cartre gwenyn 'dy hwn # a mae 'r gwenyn yn dod allan
 they PRF find some-\thing home been COP this and is.3SG the bees PROG come out
 have found something, this is a bee home, and the bees are coming out,

a mae 'na dwll yn y ddaear # mae 'r bachgen yn gweiddi yn y twll 'ma ## a
 and is.3SG there \hole in the \ground(f) is.3SG the boy PROG shout in the hole here and
 and there's a hole in the ground, the boy is shouting in this hole. And

beth sy 'n dod allan o 'r twll? na nid broga # cwningen <w i'n credu>
 what is.3SG.REL PROG come out from the hole no NEG frog rabbit <is.3SG believe>
 what comes out of the hole? no not a frog, a rabbit <I believe>

yw e ### <that's the same thing is it ya probably is> # nawr te mae 'r bachgen
 COP he now then is.3SG the boy
 is is. <That's the same thing is it ya probably is>, now then the boy

wedi dringo i goeden fawr a mae 'na hollt ym moncyff y goeden # a mae 'r
 PRF climb to \tree(f) \big and is.3SG there slit in \trunk the \tree(f) and is.3SG the
 has climbed to a big tree a there's a slit in the trunk of the tree, and the

bachgen yn [cy]sylltu i 'r hollt i weld os 'dy 'r broga 'cw ## a mae 'r gwenyn
 boy PROG touch to the slit to \see if is.3SG.Q the frog there and is.3SG the bees
 boy is touching the slit to see if the frog is there. And all the bees

i-gyd yn dod allan o 'u tŷ neu bwmp-odd hwnnw i 'r ddaear ## w -i
 all PROG come out from their house or bump.3SG.PST that to the \ground is.1SG I
 are coming out of the house or that bumped to the ground. I

'n credu taw ci a fwr-odd o ar y llawr # a maen nhw nawr xxx xxx dw
 PROG believe COMP dog REL \hit-3SG.PST he on the ground and is.3PL they now is.1SG
 believe that it was a dog who hit [it] on the ground. And they are now xxx xxx I

i 'n credu [by]ddan nhw 'n # hela 'r ci cyn bo hir nawn ni weld
 I PROG believe be.3PL.FUT they PROG chase the dog before is.3SG.COND long do.1PL.FUT we \see
 believe they'll be, hunting the dog soon we'll see.

o-'n ni 'n iawn [/] o-'n ni 'n iawn # yn troi 'r tudalen # a mae 'r
 was-1PL we PRED okey was-1PL we PRED okey PROG turn the page and is.3SG the
 We were okey [/] we were okey, turning the page, and all the

gwenyn i-gyd # ar ôl y ci mae fe yn rhedeg bant mae 'r bachgen wedi cwmpo
 bees all on track the dog is.3SG he PROG run away is.3SG the boy PRF fal
 bees, after the dog he's running away the boy has fallen

allan o 'r uh@fp goeden # a beth daeth o 'r hollt # yn y goeden? ## be' dach
 out of the \tree(f) and what came.3SG from the slit in the \tree(f) what is.2PL
 out of the uh@fp tree, and what came from the slit, in the tree? What do you

chi 'n meddwl? # beth sy 'n cuddio mewn uh@fp hollt mewn coeden? #
 you.PL PROG think what is.3SG.REL PROG hide in slit in tree
 think? What is it that's hiding in uh@fp a hole in a tree?

tylluan tylluan xxx daeth allan a gweld y bachgen wedi cwmpo ar y llawr ## a
 owl owl came.3SG out and see the boy PRF fall on the ground and
 An owl an owl xxx came out and sees the boy fallen on the ground. And

be' 'n y byd yw hwnnw <I don't know what that's supposed to be> <ha ha> ## Wel mae
 what in the world COP that well is.3SG
 what in the world is that <I don't know what that's supposed to be> <ha ha>. Well there's

'na aderyn ## du ## ac [/] a denydd enfawr roedd hi xxx gwneud a maen nhw dêl y
 there bird black and [/] and wings huge were.3SG she make and is.3PL they deal the
 a bird. Black. And [/] and huge wings she was xxx making and the deal the fright

braw ar y bachgen ## uh@fp gweld uh@fp ## mae 'r ci wedi dod 'n 'ôl o
 fright on the boy see is.3SG the dog PRF come in track from
 on the boy. Uh@fp see uh@fp. The dog has come back from

ryw-le mae 'r bachgen wedi dringo lan ar ben # twm[p]yn a mae fe 'n gweiddi
 \some-\where is.3SG the boy PRF climb up on \head mound and is.3SG he PROG shout
 somewhere the boy has climbed up on top, a mound and he's shouting

xxx galw ar y ci neu galw ar y broga mae fe 'n ## dw i ddim yn deall yn
 call on the dog or call on the frog is.3SG he PROG is.1SG I NEG PROG understand ADV
 xxx calling on the dog or calling on the frog he is. I don't understand completely

hollol beth sy 'n ymlaen yn y llun 'ma xxx ### oh@fp # <I'm not sure for the
 complete what is.3SG.REL PRED on in the picture here
 what's on in this picture xxx. Oh@fp, <I'm not sure for the

word for the deer> # uh@fp # carw ## tu-ôl i 'r uh@fp [/] tu-ôl i 'r dwm[p]yn #
 stag side-back to the side-back to the \mound(f)
 word for the deer>, uh@fp, stag. Behind the uh@fp [/] behind the mound,

pwyl sylweddoli nawr o-'n i 'n credu taw # brigau o-'n nhw # ond rheiny cyrn
 who realize now was-1SG I PROG believe COMP sticks was-3PL they but those horns
 who realize now I believed that, sticks they were, but those horns of

carw o-'n nhw # a chi-mod beth # fe god-odd y carw ei ben a mae 'na
 stag was-3pl they and you-know what AFF \raised-3SG the stage his \head and is.3SG there
 a stag they were, and you know what, the stag raised his head and there's

bachgen wedi cael ei gudio rhwng y cyrn ## a mae 'r carw 'n rhedeg nawr a
 boy PRF get his glue.INF between the horns and is.3SG the stage PROG run now and
 a boy glued between the horns. And the stag running now and

'r bachgen ar ei ben rhwng y cyrn # a 'r ci rhedeg â nhw a maen nhw dod i
the boy on his \head between the horns and the dog run with they and is.3PL they come to
the boy on top of his between the horns, and the dog running with them and they come to

glogwyn ## a xxx mae 'r carw yn aros # a 'r bachgen a ci [/] a 'r ci yn
\cliff and is.3SG the stag PROG wait and the boy and dog [/] and the dog PROG
a cliff. And xxx the stag waits, and the boy and dog [/] and the dog

cwympo dros y glogwyn <dw i 'm gwybod> mewn i ddwr w i 'n credu # o- 'n
fall over the \cliff(m) is.1SG I NEG know in to \water is.1SG I PROG believe was-1SG
falls over the cliff <I know> into water I believe, I

ni weld # os troi y tudalen mi weld xxx nawr xxx cwympo mewn i ddwr ydyn dwr
we \see if trun the page AFF \see now fall in to \water is.3PL water
saw, if [I] turn the page see xxx now xx fall into water yes water

oedd [/] dwr xxx # a ryw-un arall yn y dwr nawr <w-i 'm gwybod>
was.3SG water and some-one other in the water now is.1SG-I NEG know
it was like water xxx, and someone else in the water now <I know>

at yr un llun 'na y bachgen dw i ddim yn siwr # ond mewn i 'r dwr
to the one picture there the boy is.1sg I NEG ADV sure but in to the water
to the same picture there the boy I'm not sure, but into water

aethon nhw a 'r carw yn edrych lawr ar-non nhw # <oh na> maen nhw dod allan
went.3PL they and the stag PROG look down on-them they no is.3PL they come out
they went and the stag looking down on them, <oh no> they come out

o 'r dwr # a mae 'r ci bach yn eistedd ar ben y bachgen ##### sen
from the water and is.3SG the dog little PROG sit on \head the boy is.1SG.COND
of the water, and the little dog is sitting on top of the boy. I would

i 'n deall beth yw hwn sen i 'n gallu esbonio mae 'n well xxx fe xxx
I PROG understand what COP this is.1SG.COND I PROG can explain is.3SG PRED better he
understand what this is I would be able to explain it's xxx.

maen nhw allan o 'r dwr nawr # a mae 'na foncyff # a 'i # ganol # wedi
is.3PL they out from the water now and is.3SG there \trunk and his \center PRF
They are out of the water now, and there's a log, and its, middle,

diflannu felly a mae 'na le yn y boncyff i ryw-un # wel mynd i fewn sen
disappear so and is.3SG there place in the trunk for some-one well go to \in is.1SG.COND
disappeared so and there's room in the log for someone, well to go inside I would

i 'n feddwl mae 'r ci a 'r bachgen yn dringo dros y boncyff ## a chimod
I PROG \think is.3SG the dog and the boy PROG climb over the trunk and you.know
think the dog and the boy are climbing over the log. And you know

beth weld ar ochr draw y boncyff? ## ie # broga # a mwy nag un broga ## a
what \see on side over.there the trunk yes frog and more than one frog and
what to see on the other side of the log? Yes, a frog, and more than one frog. And

dadgu xxx bach ym mell-ach dyn ni 'n gweld holl deulu 'r broga # w-i 'n
 grandfather little ADV \far-ther man us PROG see whole \family the frog is-1SG PROG
 a little grandfather xxx now we see the whole family of frogs, I

credu tan xxx ta-beth a maen nhw 'n synnu weld faint sy 'na
 believe until anyway and is.3pl they PROG wonder \see how.many is.3SG.REL there
 believe until xxx anyway and they wonder how many are there

gyfrifan nhw 'da 'n gilydd un dau tri pedwar pump chwech saith
 \count.3PL.FUT they with our each.other one two three four five six seven
 They will count together one two three four five six seven

wyth naw un dipyn-bach wedi mynd ar-goll ### wel maen nhw 'n mynd # o 'r lle
 eight nine one \little-bit PRF go lost well is.3PL they PROG go from the place
 eight nine one a little bit gone lost. Well they are going, from the place

nawr ## ac maen nhw 'n uh@fp # chwifio "hwyl fawr" i deulu 'r broga ## o-'n nhw
 now and is.3PL they PROG wave bye big to family the frog was-3PL they
 now. And they are uh@fp, waving "goodbye" to the family of the frog. They

'n gweld bod un broga bach yn llaw y bachgen dw i 'm gwybod beth mae 'n
 PROG see is.COMP one frog little in hand the boy is.1SG I NEG know what is.3SG PROG
 saw that there was one little frog in the boy's hand I don't know he's

mynd i neud â hwnnw # gawn ni weld wrth troi 'r tudalen na # <'w-m-bod>
 go to \do with that \get.1PL.FUT we \see by turn the page no I.don't.know
 going to do with that, we'll see as we turn the page no, <I don't know>

<so> mae fe cadw un o 'r brogau bach # a mae 'r teulu i-gyd yn aros wrth y
 is.3SG he keep one of the frogs little and is.3SG the family whole PROG stay at the
 <so> he keeps one of the little frogs, and the whole family is staying by the

dwr # 'na chi 'r stori
 water there's you the story
 water, there's the story for you.

yn llun un # mae 'n gweld bachgen bach yn eistedd ar y stôl a mae 'n
in picture one is.3SG PROG see boy little PROG sit on the stool and is.3SG PROG
In picture one, one sees a little boy sitting on the stool and he's

eistedd # um@fp # ar y llawr wrth [/] wrth ochr y gwely ## a mae e 'n disgwyl
sit on the floor by by side the bed and is.3SG he prog look
sitting, um@fp, on the floor by [/] beside the bed. And he's looking

a um@fp # uh@fp botel fawr a yn y botel fawr mae broga # mae # [/] mae
and \bottle(f) \big and in the bottle(f) \big is.3SG frog is.3SG is.3SG
and um@fp, uh@fp a big bottle and in the big bottle there's a frog, ther's, [/] there's

gi fach e hefyd yn disgwyl ar y broga yn y botel ## mae # [/] mae 'n tu
\dog(m) \little he also PROG look on the frog in the \bottle is.3SG is.3SG PROG side
a little dog of his also looking at the frog in the bottle. It's, it's outside

mas i 'r ffenest # mae 'n # nos achos mae 'r lleuad yn y [/] yn yr awyr ## oedd
out to the window is.3SG PRED night because is.3SG the moon in the in the sky was.3SG
the window, it's, night because the moon is in the [/] in the sky.

y bachgen bach wedi tynnu <off> [/] tynnu bant ei ddillad a esgidiau a mae e yn
the boy little PRF pull pull away his \clothes and shoes and is.3SG he in
The little boy had pulled <off> [/] pulled away his clothes and shoes and he is in

ei <pajamas> a 'i <slippers> ## yn yr ail llun mae e wedi mynd i gwely ## mae
his and his in the second picture is.3SG he PRF go to bed is.3SG
his <pajamas> and his <slippers>. In the second picture he has gone to bed. He's

e 'n cysgu yn y gwely # mae 'r ffenest ar gaead # mae 'r ci ar y gwely a
he PROG sleep in the bed is.3SG the window on \closed is.3SG the dog on the bed and
sleeping in the bed, the window is closed, the dog is on the bed and

mae 'r ci yn # um@fp cysgu ar y gwely ## nawr # mae broga yn dod allan o
is.3SG the dog PROG sleep on the bed now is.3SG frog PROG come out from
the dog is, um@fp sleeping on the bed. Now, a frog is coming out of

'r botel ## un coes mas o 'r botel a coes arall tu &fa [/] tu fewn i 'r botel ##
the bottle(f) one leg out from the bottle(f) and leg other side side \in to the bottle(f)
the bottle. One leg out of the bottle and another leg &outside [/] inside the bottle.

yn y trydydd # llun # mae 'n bore ## mae um@fp # [/] mae 'r bachgen a 'r ci
in the third picture is.3SG PRED morning is.3SG is.3SG the boy and the dog
In the third, picture, it's morning. There's um@fp, [/] the boy and the dog are

wedi di[hu]no maen nhw 'n gorwedd ar y gwely a [/] ar y gwely yn disgwyl ar
PRF wake is.3PL they PROG lie on the bed and on the bed PROG look on
awake they are lying on the bed and [/] on the bed and, [/] on the bed looking on the

y botel(f) sydd yn wag ## <so> mae 'r bachgen wedi dod mas o 'r # [/] mas o
the bottle is.3SG.REL PRED \empty is.3SG the boy PRF come out from the out from
bottle which is empty. <So> the boy has come out of the, [/] out of

'r gwely # a mae e 'n disgwyl am y broga # mae e yn disgwyl # ac yn
the bed and is.3SG he PROG look about the frog is.3SG he PROG look and PROG
the bed, and he's looking for the frog, he is looking, and

siglo i bant un o 'i esgidiau e ## mae 'r um@fp # stôl # ar ei ben [/] wedi troi ar
swing to away one of his shoes he is.3SG the stool on his \head PRF turn on
shaking away one of his shoes. The um@fp, stool, on its head [/] turned on

ei ben mae 'r ci # wedi dodi ei ben mewn i 'r botel ## yn y llun nesa mae
his \head is.3SG the dog PRF put his \head in to the bottle(f) in the picture next is.3SG
its head the dog, has put his head inside the bottle. In the next picture

bachgen a 'r ci wedi agor y ffenest a mae bachgen yn disgwyl mas o 'r
boy and the dog PRF open the window and is.3SG boy PROG look out from the
a boy and the dog have opened the window and a boy is looking out of the

ffenest a mae e 'n galw am y broga # a mae 'r ci <ti weld 'ma> # mae
window and is.3SG he PROG call about the frog and is.3SG the dog you see here is.3SG
window and he's calling for the frog, and the dog <you see here>, he is

e â 'i ben yn # [/] yn [/] mewn yn y botel o-hyd mae e 'n trio siglo fe bant ##
he with his \head in in in in the bottle(f) still is.3SG he PROG try shake he away
with his head in, [/] in [/] inside in the bottle still he's trying to shake it away.

a # ci yn cwmpo <off> y <sill> # lawr i 'r llawr [/] lawr i 'r lawr ## pan
and dog PROG fall the down to the ground down the the ground(m) when
And, a dog falling <off> the <sill>, down to the ground [/] down to the ground. When

mae e 'n cwmpo # mae botel yn torri a nawr mae 'r bachgen yn # mynd
is.3SG he PROG fall is.3SG \bottle PROG break and now is.3SG the boy PROG go
he's falling, a bottle breaks and now the boy is, going

lawr i 'r ardd i ôl y ci # mae 'r ci yn llio fe a # [/] a mae 'r
down to the \garden(f) to track the dog is.3SG the dog PROG lick he and and is.3SG the
down to the garden [after] the dog, the dog is licking him and, and the boy

bachgen yn disgwyl yn xxx ## maen nhw [/] y bachgen wedi # xxx a wedi mynd mas i 'r
boy PROG look PROG is.3PL they the boy PRF and PRF go out to the
looks xxx. They are [/] the boy has, xxx and have gone out to the

ardd ## a mae e 'n galw am y broga # [/] galw am y broga # ond beth
\garden(f) and is.3SG he PROG call about the frog call about the frog but what
garden. And he's calling for the frog, [/] calling for the frog, but what's

sy 'n did yw um@fp ## gwenyn w-i 'n credu ## mae 'r gwenyn yn dod
is.3SG.REL PROG xxx COP bees is.1SG-I PROG believe is.3SG the bees PROG come
[coming] is um@fp. Bees I think. The bees are coming

mas o nyth sydd yn hongian ar un o 'r um@fp um@fp <oh dear> ## [/] un o 'r
 out from nest is.3SG.REL PROG hang on one of the one of the
 a nest which is hanging on one of the um@fp um@fp <oh dear>. [/] One of the

coed # [/] un o 'r coed # [/] coeden ## mae 'r ## bachgen a 'r ci yn cerdded
 trees one of the trees tree(f) is.3SG the boy and the dog PROG walk
 trees, [/] one of the trees, [/] tree. The. Boy and the dog are walking

ymlaen at y goeden mae 'r ci yn # <jump>-io lan ac yn # um@fp # <barking> ar y
 onward to the \tree(f) is.3SG the dog PROG -INF up and PROG on the
 on to the tree the dog is, jumping up and, um@fp, <barking> at the

gwenyn a [/] nyth y gwenyn a mae 'r bachgen wedi ffeindio twll a mae e 'n
 bees and nest the bees and is.3SG the boy PRF find hole and is.3SG he PROG
 bees and [/] the nest of bees and the boy has found a hole and he's

gael [/] mae e 'n lawr ar y llawr ar ei glin-ine # [/] gleninen # ac yn galw ##
 \get is.3SG he PRED down on the ground on his knee-xxx xxx and PROG call
 getting [/] he is down on the ground on his knee[s], [/] xxx, and calling.

beth sy 'n dod mas o 'r # uh@fp twll yw ## hm@fp # <rat> # hm@fp xxx #
 what is.3SG.REL PROG come out of the hole COP
 What comes out of the, uh@fp hole is. hm@fp, A <rat>, hm@fp xxx,

rhywbeth fach <ya> # um@fp # e wedi # mae e 'n &b # mae e 'n disgwyl beth
 something(m) \small he PRF is.3SG he PROG is.3SG he PROG look what
 something small <ya>, um@fp, xxx-en, he's, he's looking what

sydd e wedi cnoi # trwyn y bachgen ## a nawr # mae 'r bachgen wedi mynd [/] wedi
 is.3SG.REL he PRF bite nose the boy and now is.3SG the boy PRF go PRF
 is it that has bitten, the boy's nose. And now, the boy has gone [/] has

<climb>-io lan ## coeden [/] hen coeden fawr iawn i gael disgwyl mewn i um@fp twll yn
 -INF up tree old tree(f) \big very to \get look in to hole in
 climbed up. A tree [/] a very old tree to get to look inside um@fp hole in

um@fp # [/] yn y goeden ## mae 'r ci wedi # <fallai> # tynnu lawr uh@fp nyth y
 in the \tree(f) is.3SG the dog PRF <maybe> pull down nest the
 um@fp, [/] in the tree. The dog has, <maybe>, pulled down uh@fp the nest

gwenyn a nawr maen gwenyn yn gyd yn hedfan i fas ## a maen [/] mae 'r
 bees and now is.3PL bees PRED \joint PROG fly to \out and is.3PL is.3SG the
 of bees and now they bees [together] are flying out. And they [/] the

gwenyn yn hedfan ar ôl y ci sydd yn ffoi yn # brysur iawn i [/] i ffoi
 bees PROG fly on track the dog is.3SG.REL PROG flee ADV \hasty very to to flee
 bees are flying behind the dog who is fleeing, very hastily to [/] to flee

oddi-wrth-yn nhw # mae 'r bachgen yn cwmpo lawr o 'r goeden a mae 'r #
 from-them they is.3SG the boy PROG fall down from the \tree(f) and is.3SG the
 from them, the boy falls down from the tree and the,

&ty ty-hoo o-'n i arfer galw fe um@fp um@fp wedi dod mas i cael gweld pwy oedd
 xxx was-1SG I used.to call he PRF come out to get see who was.3SG
 [owl] I used to call it um@fp um@fp come out to get to see who was

yn trio disgwyl mewn nyth e ## nawr mae 'r bachgen yn rhedeg bant a mae 'r #
 PROG try see in nest he now is.3SG the boy PROG run away and is.3SG the
 trying to see inside [its] nest. Now the boy is running away and the,

deryn yn um@fp # yn ## <disturb>-io fe # hedfan am-dano fe um@fp [/] hedfan am-dano fe
 bird PROG PROG -INF he fly about-him he fly about-him he
 bird is um@fp, is. <Disturb>ing him, flying around him um@fp [/] flying around him.

nawr mae 'r bachgen yn [/] yn ## mynd lan &ac # craig tal a mae e 'n dala a
 now is.3SG the boy PROG PROG go up rock(f) tall and is.3SG he PROG hold and
 Now the boy is [/] is. Going up and, a tall rock and he holds and

beth mae e 'n credu yw # um@fp ## <part> o 'r goeden # mae 'r 'deryn 'n-ôl
 what is.3SG he PROG believe COP of the \tree(f) is.3SG the bird in-track
 what he thinks is, um@fp, um@fp, <part> of the tree, the bird is back

yn y goeden a mae 'r ci yn cerdded 'n-ôl at y bachgen a mae ei cwt
 in the \tree(f) and is.3SG the dog PROG walk in-track to the boy and is.3SG his tail
 in the tree and the dog is walking back to the boy and his tail

rhwng ei [/] ei draed ôl ond na nage coeden oedd y bachgen yn &disg yn dala
 between his his\feet track but no no tree was the boy PROG PROG hold
 between his [/] his back feet but no not a tree was the boy &disg holding

oedd e yn dala ar ## <antlers> ryw # beth yw <deer> <dw i 'm cofio> <deer>
 was.3SG he PROG hold on some what COP is.1SG I NEG remember
 he was holding onto. <Antlers> some, what's <deer> <I don't remember> of a <deer>

a # mae e 'n eistedd # [ar]-groes um@fp # y pen # uh@fp y <deer> <mae 'n> # a
 and is.3SG he PROG sit \across the head the is.3SG PROG and
 and, he's sitting, across um@fp, the head, uh@fp of the deer <he is>, and

mae <deer> yn dechrau ## rhedeg ffwrdd a maen nhw 'n dod i diwedd um@fp
 is.3SG PROG start run away and is.3PL they PROG come to end
 a deer starts. Running away and they are coming to an end um@fp

[/] i dod i uh@fp # hm@fp # <cliff edge> # a mae 'r [/] mae 'r <deer> yn stopio
 to come to and is.3SG the is.3SG the PROG stop
 [/] coming to uh@fp, hm@fp, <cliff edge>, and the [/] the <deer> stops

ac yn tawlu 'r bachgen # a mae 'r bachgen a 'r ci yn cwmpo lawr maen
 and PROG throw the boy and is.3SG the boy and the dog PROG fall down is.3PL
 and throws the boy, and the boy and the dog fall down they

nhw mynd i cwmpo lawr mewn i 'r afon sydd yn agos ## maen nhw lawr yn
 they go to fall down in to the river is.3SG.REL PRED near is.3PL they down in
 go to fall down into the river which is nearby. They are down in

yr afon ond maen nhw 'n saff a beth ydyn nhw 'n gweld # <shh> maen nhw
 the river but is.3PL they PRED safe and what is.3PL.Q they PROG see is.3PL they
 the river but they are safe and what do they see? <shh> they

'n gweld y rhyw um@fp ## <trunk> hen golfen a maen nhw 'n yn dawel iawn
 PROG see the some old \branch and is.3PL they PRED PRED \quiet very
 see the some um@fp. <Trunk> of an old tree and they are very quiet

maen nhw 'n disgwyl i fewn # a beth ydyn nhw 'n gweld wrth ochr # ond dwy
 is.3PL they PROG look to \in and what is.3PL.Q they PROG see by side but two
 they look inside, and what do they see beside, but two

broga ## a pan maen nhw 'n edrych yn # <glos>-ach # maen nhw 'n gweld
 frog(m) and when is.3PL they PROG look ADV \-er is.3PL they PROG see
 frogs. And when they look, <close>r, they see

bod ddau broga [/] broga a teulu gyda nhw # a mae 'r bachgen # a 'r ci #
 is.COMP \two frog frog and family with they and is.3SG the boy and the dog
 that there are two frogs a frog and a family with him, and the boy, and the dog,

yn ## mynd adre # gyda un o 'r broga bach <rw i 'n meddwl> # &lla pawb
 PROG go homeward with one of the frog little is.1SG I PROG think everybody
 are. Going home, with one of the little frog <I think>, &lla everybody

arall yn [/] yn yr afon dyna fo
 other in in the river that's he
 else in [/] in the river that's it.

um@fp # broga ble wyt ti ## mae 'r bachgen bach a 'r ci yn edrych ar y broga
frog where is.2SG you is.3SG the boy little and the dog PROG look on the frog
Um@fp, frog where are you. The little boy and the dog are looking at the frog,

yn y [/] yn y jar ## a wedyn mae 'r broga yn dianc tra maen nhw 'n cysgu
in the in the jar and then is.3SG the frog PROG escape while is.3PL they PROG sleep
in the [/] in the jar. And then the frog escapes while they are sleeping,

a maen nhw 'n dihuono ac yn methu deall lle mae 'r broga wedi mynd ##
and is.3PL they PROG wake and PROG fail understand where is.3SG the frog PRF go
and they wake up and fail to understand where the frog has gone.

ac maen nhw 'n dechrau edrych am y broga ym &mob ym mhobman ## ond yn
and is.3PL they PROG start look about the frog in in \everywhere but PROG
And they begin to look for the frog &mob everywhere. But failing

methu ffeindio xxx yn unman maen nhw 'n edrych drwy 'r ffenest # maen nhw
fail find ADV anywhere is.3PL they PROG look through the window is.3PL they
to find xxx anywhere they look through the window, they

'n galw am y broga ond dim yn cael dim ateb # a mae 'r ci yn cael ei [/]
PROG call about the frog but NEG PROG get NEG answer and is.3SG the dog PROG get his
call for the frog but don't get any answer, and the dog gets his [/]

wedi <stick>-io ei ben yn y jar # a methu dod o-hono fe # felly maen [/] maen
PRF stick his \head in the jar and fail come from-him he so is.3PL is.3PL
has <stuck> his head in the jar, and fails to come from it, so they [/] they

nhw 'n mynd allan i 'r ardd ## a mae 'r jar yn torri 'n xxx a mae 'r ci
they PROG go out to the \garden(f) and is.3SG the jar PROG break in and is.3SG the dog
go out to the garden. And the jar breaks into xxx and the dog

yn dianc ## a maen nhw mynd nawr i edrych ar [/] am y broga yn yr ardd
PROG escape and is.3PL they go now to see on about the frog in the \garden(f)
escapes. And they go now to look at [/] for the frog in the garden

mae 'n &cri galw am y broga eto a 'r ci hefyd [/] ci a 'r bachgen yn galw
is.3SG PROG call about the frog again and the dog also dog and the boy PROG call
[he] &cry calls for the frog again and the dog too [/] dog and the boy call

am y broga ## a maen gwenyn # yn dianc # o 'r um@fp # <hive> ## reit wel
about the frog and is.3PL bees PROG escape from the right well
for the frog. And them bees, escape, from the um@fp, <hive>. Right well

hyn yn dianc # o 'r cwch gwenyn # sydd ar y goeden ## a mae 'r ci yn
this PROG escape from the hive bees is.3SG.REL on the \tree(f) and is.3SG the dog PROG
this escapes, from the beehive, which is on the tree. And the dog

dechrau cyfarth yn-don nhw ## a wedyn ## mae 'r twrch daear yn dod mas o 'r [/]
begin bark in-them they and then is.3SG the boar earth PROG come out from the
starts to bark [at] them. And then. The groundhog comes out of the [/]

o # mas o 'i uh@fp # [/] o 'i le yn y daear # ac yn xxx tipyn-bach o hwn ar
from out from his from his \place in the earth(f) and PROG little-bit of this on
from, out of his uh#fp, [/] from his place in the ground, and xxx-ing a little bit from this on

y xxx [/] ar y xxx bach # a mae 'r ci yn gael i [/] i gyfarth ar y cwch gwenyn ##
the on the little and is.3SG the dog PROG \get to to \bark on the hive bees
the xxx [/] on the little xxx, and the dog gets to [/] to bark at the beehive.

<oh> mae 'r # [/] mae 'r bachgen bach nawr yn dringo'r coeden ac edrych i mewn
is.3SG the is.3SG the boy little now PROG climb the tree(f) and look to in
<Oh> the, [/] the little bow now climbs the tree and looks inside

i twll sydd yn y goeden # dal i edrych am y broga ## mae 'r gwenyn nawr
to hole is.3SG.REL in the \tree(f) continue to look about the frog is.3SG the bees now
a whole which is in the tree, still looking for the frog. The bees now

i-gyd yn dod mas o cwch # ac yn rhedeg ar ôl y ci bach ## w i 'n siwr
all PROG come out from hive and PROG run on track the dog little is.1SG I PROG sure
all come out of a hive, and run after the little dog. I'm sure

wedi cael ofn a mae bachgen yn cwmpo o-ddi ar y coeden jyst fel mae 'r tylluan
PRF get fear and is.3SG boy PROG fall from on the tree(f) just like is.3SG the owl(f)
frightened and a boy falls from the tree just like the owl

yn dod mas o 'r twll ## a mae 'r [/] mae 'r tylluan yn hedfan ar ei ôl a
PROG come out from the hole and is.3SG the is.3SG the owl(f) PROG fly on his track and
comes out from its hole. And the [/] the owl flies after him and

mae tipyn-bach o ofn ar-no fe <so> mae e 'n # [/] mae e 'n # dringo lan i ben #
is.3SG little-bit of fear on-him he is.3SG he PROG is.3SG he PROG climb up to \head
he is a bit afraid <so> he, climbs up on top,

carreg ## a wedyn mae carw yn ymddangos tu ôl i 'r carreg ## a mae e 'n
stone and then is.3SG stag PROG appear side track to the stone(f) and is.3SG he PROG
of a stone. And then a stag appears behind the stone. And he

dringo lan i ar ben y carw ## a mae 'r carw # a 'r ci yn rhedeg tuag-at y
climb up to on \head the stag and is.3SG the stag and the dog PROG run toward the
climbs up on top of the stag. And the stag, and the dog run toward the

dibyn ## a mae 'r ci a 'r bachgen yn syrthio dros y dibyn # i 'r afon ## ac
cliff and is.3SG the dog and the boy PROG fall over the cliff to the river and
cliff. And the dog and the boy fall over the cliff. And

yn ffodus dim wedi [/] does dim-byd drwg yn digwydd i-ddyn nhw maen nhw
ADV fortunate NEG PRF is.3SG.NEG nothing bad PROG happen to-them they is.3PL they
luckily didn't, [/] nothing bad happens to them they

'n dod allan o 'r afon # maen nhw 'n [/] mae 'r bachgen yn gweld hen foncyff
 PROG come out from the river is.3PL they PROG is.3SG the boy PROG see old \trunk
 come out of the river, they [/] the boy sees an old trunk

sydd ar y llawr ## a mae e 'n gweld wrth y ci yn cadw yn dawel ##
 is.3SG.REL on the ground and is.3SG he PROG see by the dog PROG keep PRED \quiet
 which is on the ground. And he sees by the dog keeping quiet.

mae e 'n dringo dros y boncyff # gyda ci # a tu ôl i 'r boncyff mae e 'n
 is.3SG he PROG climb over the trunk with dog and side track to the trunk is.3SG he PROG
 He climbs over the trunk, with a dog, and behind the trunk he

gweld dau froga # a lot o frogaod bach gyda nhw # a teulu cyfan o frogaod ## lle
 see two frog and lot of \frogs little with they and family whole of \frogs where
 sees two frogs, and a lot of little frogs with them, and a whole family of frogs. Where

maen nhw wedi ffeindio 'r broga o 'r diwedd a mae 'na [/] mae e 'n gweud
 is.3PL they PRF find the frog of the end and is.3SG there is.3SG he PROG say
 they have found the frog at last and there's [/] he says

ffarwel wrth y teulu o brogaod a mynd â 'r broga xxx
 farewell to the family of frogs and go with the frog
 "farewell" to the family of frogs and takes the frog xxx.

mae bachgen bach a ci yn eistedd o-flaen y gwely a mae ci yn edrych ar
is.3SG boy little and dog PROG sit before the bed and is.3SG dog PROG look on
A little boy and a dog are sitting in front of the bed and a dog is looking at

y brogau yn y botel ## um@fp # beth arall ## uh@fp # beth yw <moon> llun? (lleuad)
the frogs in the \bottle(f) what other what COP picture moon
the frogs in the jar. Um#fp, what else. Uh@fp, what is <moon> picture? (moon)

lleuad # y lleuad yn <shining> ah@fp (gloyw?) gloyw thrwy 'r ffenestr ##
moon the moon PROG bright bright xxx [%trwy - through] the window
moon, the moon is <shining> ah@fp (bright?) bright [through] the window.

uh@fp # mae bachgen bach wedi mynd i gwely gyda ci # mae broga # uh@fp # yn ##
-- is.3SG boy little PRF go to bed with dog is.3SG frog PROG
Uh@fp, a little boy has gone to bed with a dog, there is a frog, uh@fp.

uh@fp &cl # oh@fp # <to climb?> (dringo) dringo mas o botel ## oh@fp <so sad>
-- climb climb out from \bottle
Uh@fp &cl, oh@fp, <to climb?> (climb) climbing out of a bottle. Oh@fp <so sad>

mae bachgen a ci yn edrych am y brog-au ## uh@fp # mae bachgen bach # yn
is.3SG boy and dog PROG look about the frog-PL is.3SG boy little PROG
a boy and dog are looking for the frogs. Uh@fp, a little boy, is

gwisgo # honno # uh@fp wel # yn &fin edrych ar y brogau yn y [/] yn y ## uh@fp # <boot>
wear that well PROG look on the frogs in the in the
wearing, that, uh@fp well, &fin looking at the frogs in the [/] in the. Uh@fp, <boot>.

uh@fp bachgen a # mae ci yn gwisgo y botel ar y pen # a mae bachgen #
boy and is.3SG dog PROG wear the \bottle(f) on the head and is.3SG boy
Uh@fp boy and, a dog is wearing the bottle on the head, and a boy is,

um@fp # uh@fp # yn galw ar y [/] ar y brogau ## mae ci wedi cwmpo o 'r
-- PROG call on the on the frogs is.3SG dog PRF fall from the
um@fp, uh@fp, calling on the [/] on the frogs. A dog has fallen from the

ffenestr a # ar y # um@fp [/] ar y tir ## mae bachgen bach yn um@fp # um@fp <oh what's
window and on the on the land is.3SG boy little PROG
window and, on the, um@fp on the land. A little boy is um@fp, um@fp <oh what's

he doing I'm not quite sure what he's doing> (xxx) <oh> wedi torri y botel <ya I put my
-- PRF break the \bottle(f)
he doing I'm not quite sure what he's doing> (xxx) <oh> broken the bottle <ya I put my

finger over the bottle> # uh@fp ## uh@fp mae ci yn licio y &bach y bachgen bach
-- is.3SG dog PROG like the the boy little
finger over the bottle>, uh@fp. Uh@fp a dog id liking the &bach the little boy

uh@fp # maen nhw yn galw ar [/] am y brogau # yn y coeden ## uh@fp mae #
 is.3PL they PROG call on about the frogs in the tree(f) is.3SG
 uh@fp, they are calling on [/] about the frogs, in the tree. Uh@fp a

pilipala uh@fp # yn [/] yn y awyr # a bachgen bach yn galw # lawr y twll ## a &c #
 butterfly in in the air and boy little PROG call down the hole and
 butterfly uh@fp, in [/] in the air, and a little boy calls, down the hole. And &c,

cwningen # [/] cwningen wedi # dod mas o 'r twll ## uh@fp mae ci yn <bark>-io
 rabbit rabbit PRF come out from the hole is.3SG dog PROG -INF
 a rabbit, [/] rabbit, come out of the hole. Uh@fp a dog is <bark>ing

am y # oh@fp # pilipala ## mae uh@fp # bachgen bach yn dringo lan y # [/] y coed
 about the butterfly is.3SG boy little PROG climb up the the trees
 about the, oh@fp, butterfly. A little boy uh@fp is climbing up the, [/] the trees

[/] coeden <no that's a back> (ie coeden # cefn yw <back>) cefn <is back ya> ##
 tree ya tree back COP back
 [/] tree <no that's a back> (ya tree, back is <back>) back <is back ya>.

uh@fp mae hwdihw uh@fp yn dod mas o 'r nyth yn y coeden a bachgen
 is.3SG xxx [%gwdihw - owl] PROG come out from the nest in the tree(f) and boy
 Uh@fp an [owl] uh@fp is coming out of the nest in the tree and a little boy

bach wedi cwmpo lawr # uh@fp # pilipala um@fp # <to chase> # <chas>-io uh@fp ar
 little PRF fall down butterfly -INF on
 has fallen down, uh@fp, a butterfly um@fp, <to chase>, [chas]ing uh@fp,

ôl y ci ## um@fp mae hwdihw # uh@fp # yn <atack>-io y bachgen bach xxx ##
 track the dog is.3SG xxx [%gwdihw - owl] PROG -INF the boy little
 behind the dog. Um@fp, an [owl], uh@fp, is <atack>ing the little boy xxx.

a bachgen bach ar y # um@fp # uh@fp carreg mawr ## um@fp # uh@fp <don't know deer>
 and boy little on the stone(f) big
 And a little boy on the, um@fp, uh@fp big stone. Um@fp, uh@fp <don't know deer>.

bachgen bach wedi um@fp # dringo lan yr anifail ## (carw) carw # [/] dringo lan y carw
 boy little PRF CLIMB up the animal stag stag climb up the stag
 A little boy has um@fp, climbed up the animal. (Stag) stag, [/] climbs up the stag

[/] lan y carw ## a &c [/] mae carw yn rhedeg gyda bachgen bach uh@fp # a 'r ci ##
 up the stag is.3SG stag PROG run with boy little and the dog
 [/] up the stag. And &c [/] a stag is running with a little boy uh@fp, and the dog.

um@fp ## tynnu # <to throw?> tynnu y bachgen bach uh@fp lawr uh@fp y cwm ## <getting
 pull pull the boy little down the valley
 Um@fp. Pull, <to throw?> pull the little boy uh@fp down uh@fp the valley. <Getting

good this story> ## a bachgen wedi # cwympto yn y dŵr ## uh@fp # mae ci wedi dringo
 and boy PRF fall in the water is.3SG dog PRF climb
 good this story>. And a boy has, fallen in the water. Uh@fp, a dog has climbed

lan y bachgen bach ar y [/] ar ei pren e ## mae 'r bachgen bach wedi
 up the boy little on the on his wood [%pen- head] he is.3SG the boy little PRF
 up the little boy on the [/] on his wood. The little boy has

gweud <sh> # a dringo lan y [/] y pren ## oh@fp dyma fe # dau brogau # gyda teulu ##
 say and climb up the the wood here he two frogs with family
 said <sh>, and climbed up the [/] the wood. Oh@fp here he is, two frogs, with a family.

uh@fp chwech brogau bach ## <hooray> ## um@fp # mae bachgen bach # uh@fp ## <to
 six frogs little is.3SG boy little
 Uh@fp six little frogs. <Hooray>. Um@fp, a little boy, uh@fp, <to

keep? I don't know # to keep # has kept one of the> brogau [/] un brogau <sorry>
 froga one frogs
 keep? I don't know, to keep, has kept one of the> frogs [/] one frog <sorry>.

[% *broga*, *brogaod* - frog, frogs; -*au* is a reproductive plural ending in Welsh, though it is not the correct plural for *broga*]

oedd uh@fp bachgen bach yn uh@fp eistedd ar y llawr gyda 'i ci a 'i # ffrog ##
 was.3SG boy little PROG sit on the floor with his dog and his frog
 A little boy was uh@fp sitting on the ground with his dog and his # frog.

(ffrog yn iawn) ffrog <is it> # <ok> ## dw i ddim yn gwybod # (broga) oh@fp <ok> #
 frog PRED okay frog is.1SG I NEG PROG know frog
 (Frog's ok) frog <is it>, <ok>. I don't know, (frog) oh@fp <ok>.

<alright> mwy o geiriau anifailiad ## uh@fp # wel # aeth y bachgen bach i uh@fp cysgu
 more of words animals well went.3SG the boy little to sleep
 <alright> more animal words. Uh@fp, well, the little boy went to uh@fp sleep

ac um@fp # uh@fp diancodd y ffrainc [/] y ffrog mas o 'i # botel ac uh@fp wedyn
 and escaped.3SG the France the frog out from his \bottle(f) and then
 and um@fp, uh@fp the France [/] the frog escaped out of his, bottle and uh@fp then,

um@fp # dihunodd y bachgen bach yn y bore a oedd ei ci ar ei [/] ar y
 -- awoke.3SG the boy little in the morning and was.3SG his dog on his on the
 um@fp, the little boy woke up in the morning and his dog was on his [/] on the

gwely gyda fe <and> um@fp # sylweddolodd e bod y # beth yw 'r gair eto a[m]
 bed with he realized.3SG he is.COMP the what COP the word again for
 bed with him <and> um@fp, he realized that the, what's the word again for

ffrog? (broga) [/] broga wedi mynd ## sylwodd e 'n disgwyl am pob fath uh@fp #
 frog frog frog PRF go noticed.3SG he PROG look about every \sort
 frog? (frog) [/] frog had gone. He noticed looking for every sort uh@fp,

dros yr ystafell gwely uh@fp i e [/] i um@fp [/] i trio ffeindio 'r y broga # ac uh@fp #
 over the room bed to he to to try find the the frog and
 over the bedroom uh@fp to he [/] to um@fp [/] to try to find the the frog, and uh@fp,

aeth e i ffenest a um@fp edrychodd e yn y ble dw i 'n dod yn Cymru
 went.3SG he to window and looked.3SG he in the where is.1SG PROG come in Wales
 he went to a window and um@fp, he looked in the where I come in Wales

maen nhw 'n dweud disgwyl yn lle edrych <so> dw i 'n gwybod bod <it's>
 is.3PL they PROG say look in place look is.1SG I PROG know is.COMP
 they say 'disgwyl' insted of 'edrych' <so> I know that <it's>

disgwyl <everywhere else in Wales is expects> ond <Glen Amman> mae 'n <mean> yr
 look but is.3SG PROG the
 'disgwyl' <everywhere else in Wales is expects> but <Glen Amman> it means the

un [/] yr un peth â <ya> mae llawer o # <ya> gair wedi newydd <so> (xxx) <ya so>
 one the one thing as is.3SG many of word PRF new [%newid - change]
 same [/] the same thing as <ya> there are lots of, <ya> [changed] word[s] <so> (xxx) <ya so>

uh@fp aeth e ffenest a [/] a disgwylodd e mas i uh@fp trio gweld y [/] y broga #
 -- went.3SG he window and and look.3SG he out to try see the the frog
 uh@fp he went window and [/] and he looked out to uh@fp try to see the [/] the frog,

ac uh@fp cwmpodd y ci mas o ffenest # <and> uh@fp # gyda botel ar ei ben e #
 and fell.3SG the dog out from window with \bottle on his \head he
 and uh@fp the dog fell out of the window, <and> uh@fp, with a bottle on his head,

<so> uh@fp # a torrodd y ben [/] uh@fp torrodd y botel <rather> ar y [/] ar y tir #
 -- and broke.3SG the \head(f) broke the \bottle(f) on the on the ground
 <so> uh@fp, and he broke the head [/] uh@fp he broke the bottle <rather> on the [/] on the

<and> uh@fp # am ryw reswm oedd y [/] oedd y bachgen yn edrych yn <hurt>
 for \some \reason was.3SG the was.3SG the boy PROG look PRED
 ground, <and> uh@fp, for some reason was [/] the boy was looking <hurt>

at y ci a mi credu bod e 'n uh@fp tipyn-bach yn um@fp uh@fp dyw e
 at the dog and AFF believe is.COMP he PRED little-bit PRED is.3SG.NEG he
 at the dog and I think that he is uh@fp a little bit um@fp uh@fp he doesn't

ddim yn uh@fp hoffi bod y botel wedi torri ## <so> aeth e mas i 'r um@fp [/] i
 NEG PROG like is.COMP the \bottle(f) PRF break went.3SG he out to the to
 uh@fp like that the bottle has broken. <So> he went out to the um@fp [/] to

'r um@fp uh@fp # cefn-gwlad ac um@fp dechreuodd e uh@fp # gweiddi ar y broga # ac
 the back-country(f) and began.3SG he shout on the frog and
 the um@fp uh@fp, back country and um@fp he began uh@fp, to shout on the frog, and

uh@fp eh@fp ## ac oedd e 'n um@fp edrych lawr twll ar y tir um@fp <and>
 -- and was.3SG he PROG look down hole on the land
 uh@fp eh@fp. And he was um@fp looking down a hole on the land um@fp <and>

uh@fp # ar yr un tro dechreuodd y ci i uh@fp um@fp chwarae gyda uh@fp <now>
 -- on the one turn began.3SG the dog to play with
 uh@fp, at the same time the dog began to uh@fp um@fp play with uh@fp <now>

beehives> beth yw 'r gair am <beehives?> (xxx) dw i 'n gwybod y gair am <bees>
 -- what COP the word for is.1SG I PROG know the word for
 beehives> what is the word for <beehives?> (xxx) I know the word for <bees>

(gwenyn?) gwenyn yw e? (xxx) <ok> gwenyn <ok> # <ya> xxx dw i ddim yn
 bees bees COP he bees is.1SG I NEG PROG
 (bees?) Bees is it? (xxx) <ok> bees <ok>, <ya> xxx I don't

gwybod o-'n i 'n [/] pan o-'n i 'n um@fp ifanc o-'n nhw 'n uh@fp dysgu
 know was-1SG I PRED when was-1SG I PRED young was-3PL they PROG teach
 know I was [/] when I was um@fp young they uh@fp taught

fï uh@fp cân am uh@fp (xxx) gwenyn ond fï 'di cofio beth yw e <so ya> <so>
 I sone about bees but I PRF remember what COP he
 me uh@fp a song about uh@fp (xxx) bees but I have remembered what it is <so ya> <so>

uh@fp oedd y [/] oedd y uh@fp uh@fp [/] aeth y um@fp gwenyn mas o 'u
 -- was.3SG the was.3SG the went.3SG the bees out from their
 uh@fp the [/] the uh@fp uh@fp [/] the um@fp bees went out from their

cof a o-'n nhw ddim yn moyn cael eu uh@fp um@fp # uh@fp <disturb>-o gan
 memory and was-3PL they NEG PROG want get their -INF by
 memory and they didn't want to be uh@fp um@fp, uh@fp <disturb>ed by

y ci # ar un y tro # uh@fp oh@fp fi 'n credu mae [/] mae rhyw-beth wedi dod
 the dog on one the time I PROG believe is.3SG is.3SG some-thing PRF come
 the dog, at the same time, uh@fp oh@fp I think something has [/] has come

mas o 'r ti[r] a um@fp # cnoi uh@fp y bachgen ar y [/] ar ei trwyn e # <so> beth
 out from the land and bit the boy on the on his nose he what
 out of he land and um@fp, biten uh@fp the boy on the [/] on his nose. <So> what

yw 'na te? <vole?> (cwningen?) beth yw e? (xxx) <ok> (xxx) <oh ok> (xxx) dw i 'm
 COP that then rabbit what COP he is.1SG I NEG
 is that then? <vole?> (a rabbit?) what is it? (xxx) <ok> (xxx) <oh ok> (xxx) I don'te

gwybod beth mae o yn Saesneg (xxx) # <so> uh@fp uh@fp uh@fp dringodd y
 know what is.3SG he in English climbed.3SG the
 know what it is in English (xxx), <so> uh@fp uh@fp uh@fp the boy climbed

bachgen lan y uh@fp [/] lan y uh@fp uh@fp [/] y coeden # um@fp ac oedd y ci yn
 boy up the up the the tree(f) and was.3SG the dog PROG
 up the uh@fp [/] up the uh@fp uh@fp [/] the tree, um@fp and the dog was

trio neud nawr neu ffael neu d e anodd y # beth yw 'r gair # gwenyn # &gwenni
 try do now or fail do he difficult the what COP the word bees
 trying to do now or failing to do is difficult the, what's the word, bees, &gwenni

(cwningen?) cwningen <ok> yn dilyn e ## []n nhw mas eu cof ## <ya> # <so> rhedodd
 rabbit rabbit PROG follow he xxx they out their memory ran.3SG
 rabbit? Rabbit <ok> follow him. They [] out their memory. <Ya>, <so> Uh@fp

uh@fp y ci um@fp # yn wyllt nawr ## um@fp ac uh@fp y coeden ## uh@fp aeth y
 -- the dog ADV \wild now the tree(f) went.3SG the
 the dog ran um@fp wildly now. Um@fp and uh@fp the tree. Uh@fp the boy went

bachgen lan ## mae <crickey what's owl?> (gwidihw?) gwidihw? (neu tylluan?) <ok> gwidihw
 boy up is.3SG owl owl or owl owl
 up. <Crickey what's owl?> (owl?) owl? (or owl?) <ok> owl,

oh@fp nawr fi 'n &cof fi 'n gwidihw <ya> ## <so> oedd y gwidihw yn [/] yn byw
 now I PRED I PRED owl was.3SG the owl PROG PROG live
 oh@fp now I &cof I owl <ya>. <So> the owl was [/] was living

yna a mae e [/] daeth e mas o 'i uh@fp [/] o 'i twll mae 'n uh@fp mas ei
 there and is.3SG he came.3SG he out from his from his hole is.3SG PROG out his
 there and he [/] he came out of his uh@fp [/] from his hole he's uh@fp out his

gof hefyd <and> oedd e 'n uh@fp mynd i ymladd y [/] y bachgen ac oedd
 \memory also was.3SG he PROG go to fight the the boy and was.3SG
 memory also and he was uh@fp going to fight the [/] the boy and the [/]

y [/] y um@fp cafodd y bachgen ei ofn yna <so> dringodd e lan uh@fp uh@fp
 the the got.3SG the boy his fear there climbed.3SG he up
 the was um@fp the boy got his fear [%cafodd ... ei ofni - was frightened] there <so> he climbed

tyllydd fach ## daeth uh@fp y ci 'n ôl a dyw e ddim yn edrych yn dda
 xxx \little came.3SG the dog on track and is.3SG.NEG he NEG PROG look PRED \good
 up uh@fp uh@fp a little xxx. The dog uh@fp came back and he doesn't look good

o-gwbl ## <so> ond # ond # mae bachgen mewn trafferth eto achos mae # uh@fp [/]
 at-all but but is.3SG boy in trouble again because is.3SG
 at all. <So> but, but, a boy is in trouble again because he, uh@fp, [/]

mae y xxx wedi [/] wedi um@fp dringo nawr # oedd e 'n tŷ i um@fp
 is.3SG the PRF PRF climb now was.3SG he PRED house to
 uh@fp the xxx has [/] has um@fp climbed now, it was house to um@fp

<right go on> (carw?) carw <right ha ha> ## uh@fp carw ## ac uh@fp <so> um@fp &sef #
 -- stag stag stag and
 <right go on> (stag?) stag <right ha ha>. Uh@fp stag. And uh@fp <so> um@fp &sef,

&sefylllo sefyll-odd lan y carw ac um@fp gyda 'i [//]
 xxx-3.SG.PAST [%sefyll - stand, safodd - stood] up the stag and with his
 &sefylllo [he] stood up the stag and um@fp with his [//]

gyda bachgen ar ei ben e # ac uh@fp dechreuodd e rhedeg ryw-le i uh@fp ochr
 with boy on his \head he and began.3SG he run some-where to side
 with the boy on his head, and uh@fp he began to run somewhere to uh@fp side

uh@fp [/] ochr y <cliff> <sorry xxx> fi yn # a stopiodd e yn sydyn a #
 -- side the I in and stopped.3SG he ADV sudden and
 uh@fp [/] side of the <cliff> <sorry> my xxx, and he stopped suddenly and,

torrodd e y bachgen um@fp o 'i ben lawr uh@fp uh@fp ooh@fp [/] lawr y # [//]
 broke.3SG he the boy from his \head down down the
 he broke the boy um@fp from his head down uh@fp uh@fp ooh@fp [/] down the, [/]

lawr y # fi gwybod y gair ond fi 'di cofio fe # <so cliff> (xxx) <ok> # fi yn
 down the I know the word but I PRF remember he I PROG
 down the, I know the word but I've remembered it, <so cliff> (xxx) <ok>, I know

gwybod e # fi 'di [/] fi 'di # oh@fp lawr y <cliff anyway> # <ya> ## <so> um@fp cwympodd
 know he I PRF I PRF down the fell.3SG
 it, I've I've, oh@fp down the <cliff anyway>, <ya>. <So> um@fp he fell

e trwy 'r <air> # a cwmpodd e ar y uh@fp uh@fp mewn afon neu # [/] neu llyn
 he through the and fell.3SG he on the in river or or lake
 through the <air>, and he fell on the uh@fp uh@fp in a river or, [/] or little lake

bach # ac uh@fp oedd y ci i-ddo fe hefyd oedd y ci yn uh@fp wel dw i
 little and was.3sg the dog to-him he also was.3PL the dog PROG well is.1SG I
 and uh@fp the dog was to him also the dog was uh@fp well I don't

ddim yn credu bod e 'n gallu oifed i 'si 'n gweud oife[d] yn <Glen
 NEG PROG believe is.COMP he PROG can swim I is.3SG.COND PROG say swim in
 think that he can swim I'd say 'oife[d]' in <Glen

Amman> hefyd # <so> bob [/] pob rhan arall yn Gymru sy 'n gweud nofio #
 -- also \each each part other in \Wales is.3SG.REL PROG say swim
 Amman> also, <so> every [/] every other part in Wales which says 'nofio',

yn <Glen Amman> sy 'n gweud &oif &of oifed <so> oedd e yn ffaelu oifed
 in is.3SG.REL PROG say swim was.3SG he PROG fail swim
 in <Glen Amman> which says &oif &of swim <so> he was failing swim

y ci ddim yn gallu oifed <so> oedd e 'n uh@fp uh@fp eistedd ar y ben y
 the dog NEG PROG able swim was.3SG he PROG sit on the \head(m) the
 the dog can't swim <so> he was uh@fp uh@fp sitting on the head of the

bachgen hefyd # ac uh@fp # am ryw reswm mae [/] oedd y # [/] oedd y bachgen yn
 boy also and for \some \reason is.3SG was.3SG the was.3SG the boy PROG
 boy also, and uh@fp, for some reason there's [/] was, [/] the boy was

gweud wrth y ci i paid yn neud sŵn # ac uh@fp maen nhw 'n # dringo dros um@fp
 say to the dog to don't PROG make sound and is.3PL they PROG climb over
 telling the dog to not make a sound, and uh@fp they, climb over um@fp,

wel coeden sy wedi marw # ah@fp ar y [/] ar y [/] y [/] ar ochr arall yw um@fp y
 well tree is.3SG.REL PRF die on the on the the on side other COP the
 well a tree which has died, ah@fp on the [/] on the [/] the [/] on another side um@fp the

&brog broga gyda 'i wodgen e neu gwraig e a mae llawer o plant 'da nhw hefyd
 -- frog with his wife he or wife he and is.3SG many of children with them also
 &brog frog with his wife or his wife and there are many children with them also

<so> oedd y bachgen a 'r y ci yn um@fp balch iawn i gweld hwn ## ac uh@fp #
 was.3SG the boy and the the dog PRED glad very to see this(m) and
 <so> the boy and the the dog were um@fp very glad to see this [frog]. And uh@fp,

nawr mae xxx mynd 'n ôl gyda 'i broga dechreuodd e gyda a mae e 'n um@fp uh@fp
 now is.3SG go in track with his frog began.3PL he with and is.3SG he PROG
 now xxx go back with his frog he started with and he's um@fp uh@fp

dweud ffarwelio i 'r uh@fp um@fp teulu broga sy 'n um@fp sefyll ar y coed
 say say goodbye to the family frog is.3SG.REL PROG stand on the trees
 saying saying goodbye to the uh@fp family of the frog who um@fp is sitting on the trees.

um@fp un um@fp noswaith dywyll um@fp oedd y bachgen bach yn ei [/] yn ei um@fp
 -- one evening(f) \dark was.3SG the boy little in his in his
 Um@fp one um@fp dark evening um@fp the little boy was in his [/] in his um@fp

stafell uh@fp cysgu um@fp yn siarad <dw i 'n meddwl> gyda rhyw gi [/] ci bach #
 room sleep PROG speak is.1SG PROG thing with some \dog dog little
 uh@fp sleeping room um@fp speaking <I think> with some dog [/] little dog,

a oedd hefyd um@fp uh@fp rhyw <pot> bach wedi cael neud o gwydr um@fp oedd
 and was.3SG also some little PRF get make from glass was.3SG
 and there was also um@fp some little <pot> made of glass um@fp there was

um@fp broga yn y <pot> 'ma a mae 'r ci [/] oedd y ci yn edrych mewn um@fp
 frog in the here and is.3SG the dog was.3SG the dog PROG look in
 um@fp a frog in this pot and the dog is [/] the og was looking in um@fp

i weld beth oedd yno ## wedyn aeth y bachgen bach i gysgu # aeth e orwedd
 to \see what was.SG there then went.3SG the boy little to \sleep went.3SG he \lie
 to see what was there. Then the little boy went to sleep, he went to lie down

ar ei wely a 'r ci gyda fe # ond amser o-'n nhw cysgu mae 'r broga yn um@fp trio
 on his \bed and the dog with he but time was.3PL they sleep is.3SG the frog PROG try
 on his bed and the dog with him, but when they were sleeping the frog um@fp tries

dod allan o 'r <pot> gwydr ## um@fp wedyn ni pan ddihunodd y ci a 'r
 come out from the glass then we when \awoke.3SG the dog and the
 to come out of the glass <pot>. Um@fp then when the dog and the boy woke up

bachgen wel-on nhw bod y broga wedi diflannu ## felly aeth rhyw [/] aeth y
 boy saw-3PL they is.COMP the frog PRF disappear so went.3SG some went.3SG the
 they saw that the frog had disappeared. So some went [/] the dog went

ci mewn i [/] i 'r <pot> gwydr um@fp i weld dw ddim yn gallu gweld hynny a
 dog in to to the glass to \see is.1SG NEG PROG able see that and
 into [/] into the glass <pot> um@fp to see I can't see that and

o-'n nhw 'n weld xxx o-hyd ond nid oedd yno ar uh@fp rhoddodd ei [/] ei [/]
 was-3PL they PROG \see still but NEG was.3SG there on put.3SG.PAST his his
 they were seeing xxx still but he wasn't there on uh@fp [he] put his [/] his [/]

ei ben mewn i 'r um@fp <pot> gwydr um@fp oh@fp &th methu cael ei ben allan # a
 his \head in to the glass fail get his \head out and
 his head into the um@fp glass <pot> um@fp oh@fp &th failing to get his head out, and

dy-xxx-yn nhw 'n edrych allan trwy 'r ffenest i weld ble oedd y broga wedi
 is.3PL.NEG they PROG look out through the window to \see where was.3SG the frog PRF
 They [did]n't look out through the window to see where the frog had

mynd ## ond um@fp oedd y <pot> yn dal i fod ar pen y ci bach ## a dyma go but was.3SG the PROG continue to \be on head the dog little and here's gone. But um@fp the <pot> was still on the little dog's head. And here's

'r ci bach yn [/] yn neidio allan o 'r ffenest a 'r uh@fp <pot> o-hyd yn [/] oedd the dog little PROG PROG jump out from the window and the still PRED was.3SG the little dog jumping [/] jumping out of the window and the un@fp <pot> still [/] it was

e amgylch ei ben a bachgen yn meddwl wel ble mae 'r broga wedi mynd # he circuit his \head and boy PROG think well where is.3SG the frog PRF go [a]round his head and a boy thinks 'well where has the frog gone',

a daeth e allan wedi 'ny trwy 'r ffenest <rw i'n meddwl> # um@fp a and came.3SG he out after that through the window is.1SG I PROG think and and he came out after that through the window <I think>, um@fp and

dal y ci # um@fp ## roedd e 'n balch iawn i weld bod y [/] y <pot> gwydr wedi hold the dog was.3SG he PRED glad very to \see is.COMP the the glass PRF holding the dog, um@fp. He was very pleased to see that the [/] the glass <pot> was

um@fp [/] wedi torri # ac um@fp oedd [/] felly oedd e 'n gallu cael ei ben allan o -- PRF break and was.3SG so was.3SG he PROG able get his \head out from um@fp [/] was broken, and um@fp he was [/] thus he was able to get his head out of

'r <pot> # a wedyn daeth y ddau lawr y rhiw # um@fp tuag at y goedwig i weld the and then came.3SG the \two(m) down the hill to to the \woods(f) to \see the <pot>, and then the two came down the hill, um@fp toward the woods to see

ble oedd y broga # a mae 'r bachgen yn gweiddi ble wyt ti ble wyt where was the frog and is.3SG the boy PROG shout where is.2SG you where is.2SG where the frog was, and the boy is shouting 'where are you where are

ti a mae 'r [/] mae 'r um@fp um@fp ci yn edrych i-fyny oherwydd oedd [/] oedd you and is.3SG the is.3SG the dog PROG look up because was.3SG was.3SG you' and the [/] the um@fp um@fp dog looks up because there was [/] there was

lot o um@fp # <bees bees> dw i 'm gofio 'r gair um@fp um@fp dod allan o many of is.1SG I NEG \remember the word come out from a lot of um@fp, <bees bees> I don't remember the word um@fp um@fp coming out of

'r coed <oh ya> xxx o cwch gwenyn neu uh@fp yn hongian wrth [/] wrth y goeden the trees from hive bees or PROG hang by by the \tree(f) the trees <oh ya> xxx from a beehive or uh@fp hanging by [/] by the tree

un o 'r coed # um@fp mae 'r gwenyn yn dod allan o 'r um@fp cwch gwenyn one of the trees is.3SG the bees PROG come out from the hive bees one of the trees, um@fp the bees come out of this um@fp beehive,

'ma # a o-'n nhw 'n gweiddi # [/] gweiddi rhyw-beth yn uchel ## <so> aeth-on here and was-3PL they PROG shout shout some-thing ADV high went-3PL and they were shouting, [/] shouting something loudly. <So> they went

nhw lawr i weld um@fp cwch gwenyn oedd yn hongian ar y &ti [/] ar y [/] ar y [/] ar
 they down to \see hive bees was.3SG PROG hang on the on the on the on
 down to see um@fp a beehive [that] was hanging on the &ti [/] on the [/] on the [/] on

um@fp y goeden a mae 'r &b uh@fp ci bach yn dechrau cyfarth ar y gwenyn #
 the \tree(f) and is.3SG the dog little PROG begin bark on the bees
 um@fp the tree and the &b uh@fp little dog starts barking at the bees,

a maen nhw'n [/] dyma nhw 'n um@fp dod allan uh@fp hedfan i-ffwrdd # a
 and is.3PL they PROG here's they PROG come out fly away and
 and they [/] here they um@fp come out uh@fp flying away, and

mae 'r bachgen wedi sylwi bod twll bach yn y ddaear # mae 'n yn meddwl <oh>
 is.3SG the boy PRF notice is.COMP hole little in the \earth(f) is.3SG PROG PROG think
 the boy has notices that there is a little hole in the ground, he thinks <oh>

ni beth sydd [/] beth sy 'n byw 'na # a dyma rhyw anifail bach yn dod
 xxx what is.3SG.REL what is.3SG.REL PROG live there and here's some animal little PROG come
 'what [/] what lives there', and here's some little animal coming

allan o 'r twll # um@fp wedi &ca cael ei [/] ei # ei xxx <rw i 'n meddwl> gyda
 out from the hole PRF get his his his is.1SG I PROG think with
 out of the hole, um@fp xxx-ed <I think> with

'r holl gweiddi oedd 'na # beth oedd yr &ani anifail [/] anifail bach 'ma dw i'm
 the all shout was.3SG there what was.3SG the animal animal little here is.1SG I NEG
 all the shouting there was, what was this &ani animal [/] little animal I'm not

yn siwr # fallai mai wenci bach yw e # dw i'm [/] dw i'm yn siwr # uh@fp
 PRED sure maybe is.COMP \weasel little COP he is.1SG I NEG is.1SG I NEG PRED sure
 sure, maybe it's a weasel, I'm not [/] I'm not sure, uh@fp

dyma nhw 'n gadael um@fp y twll a mae 'r um@fp # ci wedi gweld bod y
 here's they PROG leave the hole and is.3SG the dog PRF see is.COMP the
 here they are leaving um@fp the hole and the um@fp, dog has seen that the

cwch gwenyn wedi syrthio lawr o 'r goeden # a wedi syrthio lawr i 'r [/] i 'r um@fp
 hive bees PRF fall down from the \tree(f) and PRF fall down to the to the
 beehive has fallen down from the tree, and fallen down to the [/] to the um@fp

glaswellt # yna aeth y bachgen i-fyny i 'r goeden fel mae 'n um@fp
 grass there went.3SG the boy up to the \tree(f) like is.3SG PROG
 grass, there the boy went up to the tree like he's um@fp

dechrau dringo # a twll yn y goeden # aeth e mewn &e edrych-odd e mewn i weld
 begin climb and hole in the \tree(f) went.3SG he in looked-3SG he in to \see
 starting to climb, and a hole in the tree, he went in &e he looked in to see

beth oedd yn y twll 'ma # a dyma fe 'n syrthio &n- 'n-ôl mewn &s oedd e
 what was.3SG in the hole here and here's he PROG fall back in was.3SG he
 what was in this hole, and here he is falling &n back in &s he was

'n &s mewn xxx # a [/] ac yn gweld bod um@fp tylluan yno a mae 'r dylluan
 PROG in and and PROG see is.COMP owl there and is.3SG the \owl(f)
 &s in xxx, and [/] and seeing that there is um@fp an owl there and the owl

yn dod allan â 'i adenydd um@fp ar-led yn barod i hedfan i-ffwrdd # a mae
 PROG come out with his wings spread PRED \ready to fly away and is.3SG
 comes out with his wings spread ready to fly away, and

'r ci yn rhedeg i-ffwrdd a 'r gwenyn yn eu [/] yn mynd ar ei ôl e # a 'r
 the dog PROG run away and the bees in their PROG go on his track he and the
 the dog is running away and the bees are [/] going after him, and the

bachgen ar y llawr ar ei gefn # oedd y ddau wedi cael sioc <w i 'n meddwl>
 boy on the ground on his \back was.3SG the \two(m) PRF get shock is.1SG I PROG think
 boy on the ground on his back, the two had gotten a shock <I think>.

a # dyma 'r dylluan yn dod um@fp ar ôl y [/] y bachgen yn dilyn e a mae
 and here's the \owl(f) PROG come on track the the boy PROG follow he and is.3SG
 And, here's the owl coming um@fp after the [/] the boy following him and

'r bachgen <wi 'n credu> braidd yn ofn ar-no fe ## a dyma 'r bachgen dechrau
 the boy is.1SG PROG believe rather PRED fear on-him he and here's the boy begin
 the boy <I think> is rather [afraid]. And here's the boy beginning

dringo i-fyny um@fp rhyw graig fach a 'r ci # yn trio cuddio tu ôl i 'r graig
 climb up some \rock(f) \little and the dog PROG try hide side track to the \rock(f)
 to climb up um@fp some little rock and the dog, trying to hide behind the rock

a nawr mae 'r dylluan lan yn y [/] yn y goeden yn edrych ar-nyn nhw ## a tu ôl
 and now is.3SG the \owl(f) up in the in the \tree(f) PROG look on-them they and side track
 and now the owl is up in the [/] in the tree watching them. And behind

i 'r graig # beth aeth allan ond ## um@fp gafr? nage dw i 'm yn siwr y gair
 to the \rock(f) what went.3SG out but goat no is.1SG I NEG PRED sure the word
 the rock, what went out but. um@fo A goat? no I'm not sure of the word

um@fp <stag> um@fp um@fp a mae 'r a [/] mae 'r um@fp um@fp y <stag> mae e
 -- and is.3SG the and is.3SG the the is.3SG he
 um@fp <stag> um@fp um@fp and the [/] and the um@fp um@fp the <stag> he is

'n dod allan o &tu tu ôl i 'r graig ac yn rhedeg i-ffwrdd ac yn [/] ac yn
 PROG come out from side track to the \rock(f) and PROG run away and PROG and PROG
 coming out of &tu behind the rock and running away and [/] and

um@fp mynd ar ôl y ci # a mae 'r &ba uh@fp bachgen bach ar gefn gwddf y <stag>
 go on track the dog and is.3SG the boy little on \back neck the
 um@fp going after the dog, a nd the &ba uh@fp little boy on the back of the neck of the <stag>

yma a mae 'n [/] mae 'n yn rhedeg ac yn dod yn um@fp yn-agos iawn i ochr
 here and is.3SG PROG is.3SG PROG PROG run and PROG come in near very to side
 here and it's [/] it's running and coming um@fp very near to the side of

rhyw graig ac um@fp mae 'r um@fp [/] mae e 'n eitha &s [/] tipyn o serth
 some \rock and is.3SG the is.3SG he PROG quite bit of steep
 some rock and um@fp the um@fp [/] it's quite &s [/] it's a bit of steep

ar ochr arall # felly mae 'n um@fp [/] mae 'n ofn um@fp fi'n credu bod y [/]
 on side other so is.3SG PRED is.3SG PRED fear I PROG believe is.COMP the
 on the other side, so he's um@fp [/] he's a fear um@fp<I think that> the [/]

y bachgen yn ofnus iawn fallai naeth e niwed ei-hunan os aeth y [/] yr uh@fp
 the boy PRED afraid very maybe did.3SG he injury him-self if went.3SG the the
 the boy is very afraid maybe he hurt himself if the [/] the uh@fp

anifail mynd lawr dros ochr y graig ## a wedyn # dyma 'r uh@fp gafr neu'r uh@fp <stag>
 animal go down over side the \rock(f) and then here's the goat or the
 animal went go down over the side of the rock. And then, here's the uh@fp goat or uh@fp <stag>

beth-bynnag yw 'r gair Cymraeg um@fp ar tro # neu [/] ar <dw i 'n credu> mae
 what-ever COP the word Welsh on turn or on is.1SG I PROG believe is.3SG
 whatever the Welsh word is um@fp on turn, or [/] on <I think> there's

rhyw-sut o [/] o 'r [/] o tŷ fallai wedi cael neud o bren um@fp yno a mae 'r
 some-how of of the of house maybe PRF get make from \wood there and is.3SG the
 somehow of [/] of the [/] of a house maybe made of wood um@fp there and the

bachgen nawr wedi syrthio o gefn yr um@fp [/] y gafr ac yn cwmpo lawr o 'r
 boy now PRF fall from \back the the goat and PROG fall down from the
 boy now has fallen from the back of um@fp [/] of the goat falling down from the

to y tŷ # a 'r ci hefyd ## a dyma 'r bachgen xxx syrthio lawr # yn cwmpo i
 roof the house and the dog also and here's the boy fall down PROG fall to
 roof of the house, and the dog also. And here's teh boy xxx falling down, falling

mewn i llyn neu afon # a ci bach ar ei [/] ar ei [/] ar ei ysgwydd e uh@fp oherwydd mae
 in to lake or river and dog little on his on his on his shoulder he because is.3SG
 into a lake or river, and a little dog on his [/] on his [/] on his shoulder uh@fp because

'n um@fp [/] mae 'r ci yn ofnus iawn # a fi'n credu bod y bachgen braidd
 PRED is.3SG the dog PRED afraid very and I PROG believe is.COMP the boy rather
 um@fp [/] the dog is very afraid, nd I think that the boy is rather

yn bryderus hefyd ## mae 'r ddau yn dod allan <w-i 'n meddwl> um@fp
 PRED \anxious also is.3SG the \two(m) PROG come out is.1SG-I PROG think
 worried also. The two are coming out <I think> um@fp

a mae 'r bachgen yn um@fp # [/] wedi dod allan o 'r afon a mae 'r ci jyst
 and is.3SG the boy PROG PRF come out from the river and is.3SG the dog just
 and the boy is um@fp, [/] has come out of the river and the dog is just

yn nofio tu ôl i-ddo fe ac xxx dod allan # a wedyn mae 'r ddau yn dal
 PROG swim side track to-him he and come out and then is.3SG the \two(m) PROG hold
 swimming behind him and xxx comes out, and then the two hold

mewn um@fp rhan o goeden um@fp # ac yn [//] fi'n credu bod nhw 'n nawr [//]
 in piece of \tree and PROG I PROG believe is.COMP they PRED now
 in um@fp a piece of a tree um@fp, and [//] I think that they now are

yn iawn wedi dod allan o 'r afon ## pan o-nyn nhw 'n mynd dros um@fp # [//]
 PRED okay PRF come out from the river when was-3PL they PROG go over
 ok having come out of the river. When they were going over the um@fp, [//]

dan o 'r goeden 'ma i 'r lawr i 'r ochr arall dyna nhw 'n gweld y ddau
 under from the \tree(f) here to the ground(m) to the side other there's they PROG see the \two(m)
 under from this tree down to the other side there they see the two,

llyffant <dw i 'n meddwl> yw 'r gair arall am broga um@fp mae dau o nhw a
 frog is.1SG I PROG think COP the word other for frog is.3SG two of they and
 frog I think is the other word for frog um@fp two of them and

mae teulu bach yna ## a # <oh> mae 'r ddau yn edrych yn [//] yn [//] ar-ddyn nhw
 is.3SG family little there and is.3SG the \two(m) PROG look in in on-them they
 there's a little family there. And, <oh> the two are looking in [//] in [//] at them and

ac yn surpris iawn a gweld y llyffantod mae i-gyd ar ochr arall i 'r goeden ## a
 and PRED surprise very and see the frogs is.3SG all on side other to the \tree(f) and
 very surprise[d] and seeing the frogs they all are on the other side of the tree. And

wedyn dyma 'r um@fp bachgen a 'r ci bach yn mynd 'n ôl dros yr afon eto ac
 then here's the boy and the dog little PROG go in track over the river again and
 then here's the um@fp boy and the little dog going back over the river again and

yn um@fp # [//] yn gweud <goodbye> wrth [//] wrth y uh@fp# brogaed yn nhw? ## a
 PROG PROG say to to the frogs is.3PL they and
 um@fp, saying <goodbye> to [//] to the uh@fp, frogs are they? And

wedyn i um@fp dyma diwedd y stori a mae 'r um@fp [//] mae 'r ddau o nhw
 then to here's end the story and is.3SG the is.3SG the \two(m) of them
 then to um@fp here's the end of the story and the um@fp [//] the two of them

'n saff a mynd 'n ôl adre a gobeithio byddan nhw 'n byw yn [//] yn [//]
 PRED safe and go in track homewards and hopefully be.3PL.FUT they PROG live ADV ADV
 safe and going back home and hopefully they will live [//] [//]

yn hapus ar ôl um@fp yr <adventure> 'ma
 ADV happy on track the here
 happily after um@fp this adventure.

um@fp dydw i ddim yn gwybod pob gair anifeiliad (xxx) <ya ok> ## um@fp <k>
 -- is.1SG.NEG I NEG PROG know every word animals
 Um@fp I don't know every animal word (xxx) <ya ok>. Um@fp <k>

mae um@fp # [/] mae bachgen um@fp yn ystafell gwely gyda 'r um@fp uh@fp [/] ei [/] ei [/]
 is.3SG is.3SG boy in room(f) bed with the his his
 A um#fp, [/] a boy um@fp is in a bedroom with the um@fp uh@fp [/] his [/] his

ei gi a 'r um@fp ffrog yn y botel ## uh@fp mae [/] mae bachgen yn cysgu ac uh@fp
 his \dog and the frog in the \bottle(f) is.3SG is.3SG boy PROG sleep and
 [/] his dog and the um@fp frog in the bottle. Uh@fp a [/] a boy is sleeping and uh@fp

tra uh@fp [/] tra mae e 'n [/] yn [/] yn cysgu uh@fp mae ffrog yn um@fp um@fp [/]
 while while is.3SG he PROG PROG PROG sleep is.3SG frog PROG
 while uh@fp [/] while he's [/] he's [/] he's sleeping uh@fp a frog um@fp um@fp [/]

yn um@fp ffoi o 'r [/] o 'r botel diflannu [/] yn diflannu ## um@fp # yn y [/] yn y
 PROG flee from the from the \bottle(f) disappear PROG disappear in the in the
 um@fp flees from the [/] from the bottle disappear [/] disappearing. Um@fp, in the [/] in the

bore # uh@fp # mae bachgen yn um@fp [/] yn ei [/] yn gweld bod yr ffrog yn [/]
 morning is.3SG boy PROG PROG his PROG see is.COMP the frog PROG
 morning, uh@fp, a boy is um@fp is [/] sees that the frog is [/]

yn [/] wedi diflannu # mae e 'n trist &tr trist iawn ## um@fp mae e 'n um@fp #[/] mae
 PROG PRF disappear is.3SG he PRED sad sad very is.3SG he PROG is.3SG
 is [/] has disappeared, he is sad &tr very sad. Um@fp he's um@fp, [/]

bachgen a 'r ci yn chwilio bob-le uh@fp i ffeindio'r uh@fp [/] y ffrog # ac um@fp
 boy and the dog PROG search every-place to find the the frog and
 a boy and the dog look everywhere uh@fp to find the uh@fp [/] the frog, and um@fp

mae e 'n um@fp [/] dydy [/] dydy ddim yn gallu uh@fp ffeindio'r uh@fp[/] ffeindio
 is.3SG he PROG is.3SG.NEG is.3SG.NEG NEG PROG able find the find
 he's um@fp [/] can't [/] he can't uh@fp find the uh@fp [/] find

'r ffrog uh@fp &rh rhyw-le ## mae yn edrych yn y stafell gwely # &edyr edrych uh@fp
 the frog somewhere is.3SG PROG look in the room(f) bed look
 the frog uh@fp somewhere. [He] looks in the bedroom, &edr looks uh@fp

[/] mae 'n agor y ffenestr a chwilio tu uh@fp [/] tu allan ## um@fp # mae ci yn
 is.3SG PROG open the window and search side side out is.3SG dog PROG
 [/] [he] opens the window and searches out uh@fp [/] outside. Um@fp, a dog

syrthio um@fp uh@fp o 'r [/] o 'r ffenestr # um@fp ar um@fp um@fp mae [/] mae 'r
 fall from the from the window on is.3SG is.3SG the
 falls um@fp uh@fp from the [/] from the window, um@fp on um@fp um@fp the [/] the

rhaidd y bachgen yn yn dod allan i [/] i ffeindio [/] i ffeindio ci ## um@fp ## mae
 necessity the boy PROG PROG come out to to find to find dog is.3SG
 boy needs [to] come out to [/] to find [/] to find a dog. Um@fp. A

bachgen a ci um@fp yn mynd mas uh@fp i # edrych ar y ffrog yn um@fp [/] yn y coed
 boy and dog PROG go out to look on the frog in in the trees
 boy and a dog um@fp go out uh@fp to, look [for] the frog in um@fp [/] in the woods.

a &am # mae hw yn [/] yn gweld um@fp <bees> # um@fp gwybod yr [/] y [/] y gair
 and is.3SG they PROG PROG see know the the the word
 And &am, they see [/] see um@fp <bees>, um@fp know the [/] the [/] the word

um@fp a mae hw ffeindio'r um@fp nyth [/] nyth <bees> ## um@fp mae ci yn uh@fp
 and is.3SG they find the nest nest is.3SG dog PRED
 um@fp and they find the um@fp nest [/] nest of <bees>. Um@fp a dog is uh@fp

diddorol iawn yn y [/] yn y [/] yn [/] yn nyth [/] nyth <bees> ## uh@fp # mae bachgen yn
 interesting very in the in the in in nest nest is.3SG boy PROG
 very interesting in the [/] in the [/] in [/] yn nest [/] nest of <bees>. Uh@fp, a boy is

edrych um@fp um@fp yn yr uh@fp um@fp [/] y pren i [/] i um@fp # i [/] i [/] i ffeindio [/] i
 look in the the wood to to to to to find to
 looking um@fp um@fp in the uh@fp um@fp [/] the wood to [/] to um@fp, to [/] to [/] to find [/]

ffeindio'r ffrog ## um@fp uh@fp mae um@fp # um@fp [/] mae [/] mae <bees> yn um@fp #
 find the frog is.3sg is.3SG is.3SG PROG
 to find the frog. Um@fp uh@fp are um@fp, um@fp [/] are [/] bees are um@fp,

<chase> beth yw <chase anyway> mae [/] mae 'n <chase> yr uh@fp [/] dilyn yr [/] dilyn y [/]
 -- what COP is.3sg is.3SG PROG the follow the follow the
 <chase> what is <chase anyway> are [/] are chasing the uh@fp [/] following the [/] following the

dilyn y [/] dilyn y ci a [/] a mae bachgen yn [/] yn um@fp syrthio tu allan y [/] y [/]
 follow the follow the dog and and is.3SG boy PROG PROG fall side out the the
 [/] following the [/] following the dog and [/] and a boy is [/] is um@fp falling outside the [/] the

y [/] y pren ## um@fp ## uh@fp yr uh@fp [/] yr <owl> uh@fp <owl> yn um@fp [/] yn dilyn
 the the wood the the PROG PROG follow
 [/] the [/] the wood. Um@fp. Uh@fp the uh@fp [/] the <owl> uh@fp <owl> um@f [/] follows

yr [/] yn dilyn y [/] yn dilyn y bachgen ## um@fp yn diweddar # um@fp # ceff? [/]
 the PROG follow the PROG follow the boy ADV recent xxx
 the [/] follows the [/] follows the boy. Um@fp recently, um@fp a xxx?

ceff yn yr [/] y # [//] mae 'r bachgen yn ffeindio'r [/] ffeindio y ceff a mae ceff yn
 xxx in the the is.3SG the boy PROG find the find the xxx and is.3SG xxx PROG
 [/] a xxx in the [/] the, [//] the boy finds the [/] finds the xxx and a xxx

mynd # a 'r bachgen gyda [/] gyda e ond ## um@fp mae uh@fp [/] mae 'r bachgen a
 go and the boy with with he but is.3SG is.3SG the boy and
 goes, and the boy with [/] with him but. Um@fp the uh@fp [/] the boy and

ci yn syrthio mewn um@fp ## um@fp [/] mewn [/] mewn pwll # mae 'n [/] mae [/] mae
 dog PROG fall in in in pool is.3SG PROG is.3SG is.3SG
 dog fall in um@fp. Um@fp [/] in [/] in a pool, there's [/] they [/] they

hw yn &goly gwlyb iawn ## uh@fp yn y diwedd # um@fp uh@fp mae bachgen a 'r
 they PRED wet very in the end is.3SG boy and the
 are &goly very wet. Uh@fp in the end, um@fp uh@fp a boy and the

ci yn ffeindio'r um@fp uuh@fp pren <hollow> # ac mae uh@fp mae hw 'n
 dog PROG find the wood and is.3SG is.3SG they PROG
 dog find the um@fp uuh@fp <hollow> wood, and they uh@fp they

ffeindio y ffrog gyda [/] gyda ffrind bach ## a 'i [/] yn y # [/] yn y diwedd # pawb
 find the frog with with friend little and his in the in the end everyone
 find the frog with [/] with a little friend. And his [/] in the, [/] in the end, everyone

yn uh@fp [/] yn hapus # achos mae ffrog yn ffeindio ei [/] ei deulu uh@fp [/] ei
 PRED PRED happy because is.3SG frog PROG find his his \family his
 uh@fp [/] [is] happy, because a frog finds his [/] his family uh@fp [/] his

deulu e ## dyma 'r [/] dyma 'r diwedd
 \family he here's the here's the end
 family. Here's the [/] here's the end.

un nos um@fp oedd y lloer uh@fp [/] gyda 'r lloer um@fp tu fas ar golau lan
 one night was.3SG the moon with the moon side out on light up
 One night um@fp th emoon was uh@fp [/] with the moon um@fp outside [bright] up

oedd <Tomas> yn eistedd lawr # ac yn edrych ar y ci fach um@fp uh@fp <Twm>
 was.3SG PROG sit down and PROG look on the dog(m) \little
 <Tomas> was sitting down, an looking at the litle dog um@fp uh@fp <Twm>

Twm> # gyda trwyn yn jar ble oedd # um@fp ffrog fach yn edrych lan ## pan um@fp
 with nose in jar where was.3SG frog(m) \little PROG look up when
 Twm>, with a nose in a jar where um@fp there was a little frog looking up. When um@fp

oedd y dwy <Tomas> a <Twm Twm> yn cysgu yn y gwely # mas o 'r jar
 was.3SG the two(f) and PROG sleep in the bed out from the jar
 the two <Tomas> and <Twm Twm> were sleeping in the bed, out from the jar

aeth y ffrog ## um@fp uh@fp### ac yn neud sŵn fach um@fp # a <Twm Twm>
 went.3SG the frog and PROG make sound(m) \little and
 went the frog. Um@fp uh@fp. And making a little sound um@fp, and <Twm Twm>

a <Tom> yn um@fp [/] yn [/] yn <wake up> # ac yn edrych ble mae 'r ffrog wedi
 and PROG PROG PROG and PROG look where is.3SG the frog PRF
 and <Tom> um@fp [/] [/] <wake up>, and looking where has the frog

mynd a dim e wedi diflannu mae 'n dim <sign> am xxx y ffrog # uh@fp ble
 go and NEG he PRF disappear is.3SG PROG NEG about the frog where
 gone and not he's disappeared [there]'s no sign about xxx the frog, uh@fp where

mae e maen nhw 'n edrych um@fp yn trwsus a # rhwng yr esgidiau # um@fp
 is.3SG he is.3PL they PROG look in trousers and between the shoes
 is he they look um@fp in trousers and, between the shoes, um@fp

a # yn # [/] <under> y gwely # um@fp ## a wedyn uh@fp mae <Tom> yn galw o
 and in the bed and then is.3SG PROG call from
 and, in, [/] <under? the bed, um#fp. And then uh@fp <Tom> calls from

ffenestr ble mae ffrog ffrog ffrog oedd uh@fp <Twm Twm> y ci wedi [/] wedi rh[o]i
 window where is.3SG frog frog frog was.3SG the dog PRF PRF put
 a window 'where's frog frog frog!' uh@fp <Twm Twm> the dog had [/] had put

ei trwyn yn y jar # a nawr mae 'n um@fp # wel [/] mae 'n edrych <ya> mae 'n
 his nose in the jar and now is.3SG PROG well is.3SG PROG look is.3SG PRED
 his nose in the jar, there there's um@fp well, [/] [it] looks <oh ya> [it]'s

<stuck> # a wedi cwmpo o 'r ffenestr lawr i 'r um@fp [/] i 'r llawr # mae <Twm>
 and PRF fall from the window down to the to the ground is.3SG
 <stuck>, and fallen from the window down to the um@fp [/] to the ground, <Twm>

yn edrych yn um@fp uh@fp ## wel ddim yn cyfleus ## um@fp uh@fp ### <ah> ond mae
 PROG look PRED well NEG PRED convenient but is.3SG
 looks um@fp hm@fp. Well not convenient. Um@fp uh@fp. <Ah> but

'r clyfar ci mae 'n um@fp uh@fp mwy uh@fp peniog # mae wedi torri 'r um@fp [/] y
 the clever dog is.3SG PRED more clever is.3SG PRF break the the
 the dog clever he's um@fp uh@fp more uh@fp clever, [he]'s broken the um@fp the

jar um@fp a # xxx cwympo o 'r ffenestr ond mae <Twm> yn edrych yn eitha grac
 jar and fall from the window but is.3SG PROG look PRED quite angry
 jar um@fp and, xxx fall from the window but <Twm> looks quite angry,

achos oedd e 'n um@fp ofn um@fp um@fp oedd e 'n <worried> iawn ## <so>
 because was.3SG he PROG fear was.3SG he PRED very
 because he was um@fp fear[ing] um@fp um@fp he was very <worried>. <So>

mae 'n &da [/] nawr mae 'r um@fp [/] mae 'r [/] mae 'r dydd wedi dod a maen
 is.3SG PROG now is.3SG the is.3SG the is.3SG the day PRF come and is.3PL
 it's [/] now the um@fp [/] the [/] the day has come and they

nhw 'n mas yn galw am y ffrog ble mae 'r ffrog ## um@fp ### ond mae 'r
 they PRED out PROG call about the frog where is.3SG the frog but is.3SG the
 are out shouting for the frog 'where's the frog'. Um@fp. But the

ffrog wedi mynd # ac um@fp # mae 'r <honey bees> yn dod # o rhywle um@fp efallai
 frog PRF go and is.3SG the PROG come from somewhere maybe
 frog has gone, and um@fp, the <honey bees> are coming, from somewhere um@fp maybe

gyda 'r sŵn a # ac o-'n nhw'n galw ar um@fp y ffrog ## a mae cŵn fach
 with the sound and and was-3PL they PROG call on the frog and is.3SG dogs \little
 with the noise and, and they were calling on um@fp the frog. And little dogs

yn [/] yn um@fp [/] maen nhw 'n [/] mae 'n diddorol iawn ar <honeybees> # a mae
 PROG PROG is.3PL they PROG is.3SG PRED interesting very on and is.3SG
 are [/] are um@fp [/] they are [/] [he]'s very interesting on <honebees>, and

<Twm> yn galw lawr twll i 'r ddaear # um@fp a gobeithio i ffeindio'r ffrog ond
 PROG call down hole to the \earth(f) and hope to find the frog but
 <Twm> calls down a hole to the ground, um@fp and hop[ing] to find the frog but,

o 'r y twll aeth y <mole> # <oh> medd <Twm> ### wedyn mae <Twm> yn
 from the the hole went.3SG the said then is.3SG PROG
 from the the hole went the <mole>, '<oh>' said <Twm>. Then <Twm>

mynd lan i 'r um@fp [/] i 'r coed ac yn edrych lan y twll arall i gobeithio i weld y
 go up to the to the trees and PROG look up the hole other to hope to \see the
 goes up to the um@fp [/] to the trees and looks up the other hole to hope to see the

ffrog # ond mae 'r cŵn yn cael <problem> iawn gyda 'r <bees> ##### a mae <bees>
 frog but is.3SG the dogs PROG get very with the and is.3SG
 frog, but the dogs are getting a very problem with the <bees>. And <bees> are

yn dod lan [/] lan i 'r um@fp [/] i 'r dod ar ôl y [/] y [/] y cŵn mae 'n rhedeg
 PROG come up up to the to the come on track the the the dogs is.3SG PROG run
 coming up [/] up to the um@fp [/] to the coming behind the [/] the [/] the dogs he's running

yn rhedeg <off> a mae <Twm> wedi cwmpo mas o 'r [/] o 'r um@fp coed # achos
 PROG run and is.3SG PRF fall out of the of the trees because
 running <off> and <Twm> has fallen out of the [/] of the um@fp trees, because

oedd um@fp aderyn fawr iawn yr <owl> yn dod mas o 'r um@fp [/] o 'r derwen
 was.3SG bird(m) \big very the PROG come out from the from the oak
 there was um@fp a very big bird the <owl> coming out of the um@fp [/] of the oak-tree.

ac roedd y sioc i fe ## a mae <Twm> yn eitha grac eto # mae 'n ofni
 and was.3SG the shock to he and is.3SG PRED quite \angry again is.3SG PROG fear
 And it was [a] shock to him. And <Twm> is quite angry again, he's fearing

beth sy mynd i [/] beth sy 'n mynd i digwydd ## a mae 'n galw a galw
 what is.REL go to what is.REL PROG go to happen and is.3SG PROG call and call
 what's go to [/] what's going to happen. And he calls and calls

ar y ffrog # a mae cŵn yn dod 'n ôl ##### ac yn edrych yn y carreg uh@fp tu
 on the frog and is.3SG dogs PROG come in track and PROG look in the rock(f) side
 on the frog, and dogs come back. And looking on the rock uh@fp

ôl y carreg um@fp yn twll arall i 'r ardd # ond mae <Twm> dim yn lwcus iawn #
 track the rock(f) in hole other to the \garden(f) but is.3SG NEG PRED lucky very
 behind the rock um@fp in another hole to the garden, but <Twm> isn't very lucky,

yn anffodus mae e wedi edrych mewn twll ## <oh> na mae 'n [/] mae 'n um@fp
 ADV unfortunate is.3SG he PRF look in hole no is.3SG PROG is.3SG PROG
 unfortunately he has looked in a hole. <Oh> he's [/] he's um@fp

[/] mae 'n dal i [/] i &dem [/] ar y pren ond # dim pren oedd uh@fp [/] oedd 'na
 is.3SG PROG hold to to on the wood but NEG wood was.3SG was.3SG there
 [/] he's holding to [/] to [/] on the wood but, it wasn't wood that was uh@fp [/] that was there

ond um@fp <a deer> # <a stag> ## ac oedd yr <stag> yn um@fp rhedeg a rhedeg
 but and was.3SG the PROG run and run
 but um@fp <a deer>, <a stag>. And the <stag> was um@fp running and running

ar ôl y cŵn um@fp a <Twm> ## um@fp yn stwc 'na # ar pen y [/] y <stag> ##
 on track the dogs and PRED xxx there on head the the
 after the dogs um@fp and <Twm>. Um@fp [stuck] there, on top of the [/] the <stag>.

a 'r y <stag> yn tawlu <Twm> a 'r ci oddi-wrth y um@fp [/] y llawr i 'r uh@fp
 and the the PROG throw and the dog from the the ground to the
 And the <stag> throws <Twm> and the dog from the um@fp [/] the ground to the uh@fp

[/] i 'r um@fp [/] i 'r nant ## a nhw i-gyd yn [/] yn um@fp [/] yn cwmpo # mewn i 'r
 to the to the stream and they all PROG PROG PROG fall in to the
 [/] to the um@fp [/] to the stream. And they all [/] um@fp [/] falling, into the

dŵr ## ond mae <Twm> a 'r ci yn eitha hapus ## clyw-on nhw sŵn yn dod
 water but is.3SG and the dog PRED quite happy heard-3PL they sound PROG come
 water. But <Twm> and the dog are quite happy. They heard a sound coming

o 'r twll arall yn pren ar-bwys y nant ## <sh> medd uh@fp <Twm> ## aeth y
 from the hole other in wood near the stream said went.3SG the
 from the other hole in wood near the stream. <'Sh'> said uh@fp <Twm>. The

dau o nhw i edrych tu ôl y coed # a wel-on nhw dau ffrog yn eistedd
 two(m) of they to look side track the trees and saw-3PL they two frog PROG sit
 two of them went to look behind the trees, and they saw two frogs sitting

â' i-gilydd # yn edrych yn hapus iawn ## ac oedd dau ffrog wedi cael plant
 with each-other PROG look PRED happy very and was.3SG two frog PRF get children
 together, looking very happt. And two frogs had had little children.

bach ## saith plant fach ##### <hoorah> medd <Twm> yn canu ## ac yn [//] wedi um@fp
 little seven children \little said PROG sing and PROG PRF
 Seven little children. '<Hooray>' said <Twm> singing. And [//] um@fp

ffeindio ffrog arall ## a nawr mae naw ffrog-iau fach ## 'na ni
 find frog other and now is.3SG nine frog-s \little there's we
 having found another frog. And now there are nine little ffrogs. There we are.

uh@fp mae 'na hogyn bach um@fp yn eistedd ar um@fp um@fp gadair # efo ei [/]
 is.3SG there boy little PROG sit on \chair with his
 Uh@fp there's a little boy um@fp sitting on um@fp um@fp a chair, with his [/]

efo um@fp ei gi # ac um@fp maen nhw 'n edrych ar # hm@fp uuh@fp ffrog uh@fp (paid
 with his \dog and is.3PL they PROG look on frog don't
 with um@fp his dog. And um@fp they are looking at, hm@fp uuh@fp a frog uh@fp (don't

poeni am y geirfa) um@fp dw i'm cofio 'r enw um@fp a um@fp ond yn
 worry about the vocabulary is.1SG I NEG remember the noun and but ADV
 worry about the vocabulary) um@fp I don't remember the noun um@fp and um@fp but

wedyn maen nhw 'n um@fp mynd i 'r gwely i gysgu # ac mae 'r um@fp # [/] mae 'r
 then is.3PL they PROG go to the bed to \sleep and is.3SG the is.3SG the
 then they um@fp go to bed to sleep, and the um@fp, [/] the

ffrog yn [/] yn dianc um@fp o 'r um@fp um@fp [/] o 'r botel um@fp lle [/] lle
 frog PROG PROG escape from the from the \bottle(f) where where
 frog [/] escapes um@fp from the um@fp um@fp [/] from the bottle um@p where [/] where

oedd [/] lle oedd o ## ac mae [/] mae o 'n diflannu # ac mae [/] mae [/] mae 'r
 was.3SG where was.3SG he and is.3SG is.3SG he PROG disappear and is.3SG is.3SG is.3SG the
 he was [/] where he was. And he [/] he disappears, and the [/] the [/] the

hogyn a 'r ci yn synni # lle mae o maen nhw 'n deud ## felly maen
 boy and the dog PROG are.surprised where is.3SG he is.3PL they PROG say so is.3PL
 boy and the dog are surprised, 'where is he' they say. So they

nhw'n edrych ym mhob-man # um@fp am y [/] am y ffrog um@fp # uh@fp yn uh@fp
 they PROG look in \every-place about the about the frog PROG
 look everywhere, um@fp for the [/] for the frog um@fp, uh@fp uh@fp

ac um@fp mae 'r ci yn [/] yn rhoi um@fp uh@fp mae 'r ci yn um@fp um@fp
 and is.3SG the dog PROG PROG put is.3SG the dog PROG
 and um@fp the dog put [/] puts um@fp uh@fp the dog um@fp um@fp

[/] yn um@fp yn <stuff>-io ei [/] ei ben yn y [/] yn y [/] yn y [/] yn y botel um@fp #
 PROG PROG -INF his his \head in the in the in the in the \bottle(f)
 [/] um@fp <stuff>s his [/] his head in the [/] in the [/] in the [/] in the bottle um@fp,

um@fp felly mae [/] mae &ma [/] mae gan y ci um@fp um@fp botel ar ei um@fp [/] ar
 so is.3SG is.3SG is.3SG with the dog \bottle on his on
 um@fp so there's [/] there's &ma [/] the dog has um@fp a bottle on his um@fp [/] on

ei ben ### ac mae o 'n # o [/] wedyn mae uh@fp
 his \head and is.3SG he PROG he then is.3SG
 his head. And he's, he [/] then there's uh@fp

[/] mae 'r ci yn disgyn o 'r ffenest i'r llawr
 is.3SG the dog PROG fall from the window to the ground
 [/] the dog falls from the window to the ground

a mae 'r botel yn [/] yn [/] yn torri ## um@fp mae 'r [/] mae 'r uh@fp uh@fp
 and is.3SG the \bottle(f) PROG PROG PROG break is.3SG the is.3SG the
 and the bottle [/] [/] breaks. Um@fp the [/] the uh@fp

[/] mae 'r ci yn [/] yn um@fp [/] yn falch iawn o hynny ond mae 'r hogyn yn [/]
 is.3SG the dog PRED PRED PRED \glad very from that but is.3SG the boy PRED
 [/] the dog [/] um@fp [/] is very glad of that but the boy is [/]

yn uh@fp [/] yn digon um@fp [/] wel dydy o ddim yn edrych yn [/] yn [/] yn
 PRED PRED enough well is.3SG.NEG he NEG PROG look PRED PRED PRED
 is uh@fp [/] is enough um@fp [/] well he doesn't look [/] [/]

rhy hapus ## ond mae 'r dau yn dal i chwilio am y [/] am y ffrog # um@fp
 too happy but is.3SG the two PROG continue to look for the for the frog
 too happy. But the two are still looking for the [/] for the frog, um@fp

uh@fp ac maen nhw 'n mynd um@fp tu mewn i rhyw ### uh@fp fforest neu rhywbeth
 and is.3PL they PROG go side in to some forest or something
 uh@fp and the go um@fp inside some. Uh@fp forest or something

um@fp lle mae llawer o [/] o [/] o [/] o goed ## ac wedyn # um@fp mae 'r ci yn
 where is.3SG many of of of of \trees and then is.3SG the dog PROG
 um@fp where there are lots of [/] of [/] of [/] of trees. And then, um@fp the dog

um@fp # darganfod # um@fp haid ydy o <beehive> haid dw i 'n credu um@fp o #
 discover swarm COP he swarm is.1SG I PROG believe of
 um@fp, discovers, um@fp a swarm is it <beehive> swarm I think um@fp of,

um@fp wenyn um@fp # ac um@fp mae 'r bachgen yn [/] yn edrych tu &me um@fp
 \bees and is.3SG the boy PROG PROG look side
 um@fp bees um@fp, and um@fp the boy [/] looks &me um@fp

[/] tu mewn i [/] i [/] i [/] i dwll yn y daear # dwll um@fp mwy na debyg sy 'n
 side in to to to to \hole in the earth(f) \hole more than \likely is.REL PROG
 [/] inside [/] [/] a hole in the ground, a hole um@fp more than likely which

berthyn i [/] sy 'n perthyn i um@fp uh@fp uh@fp mochyn ddaer # ond dydy o
 \belong to is.REL PROG belong to pig(m) \earth but is.3SG.NEG he
 belongs to [/] which belongs to um@fp uh@fp a groundhog, but it isn't

ddim ond um@fp mae 'r um@fp yn wedyn mae [/] mae [/] mae anifail yn um@fp um@fp
 NEG but is.3SG the PROG then is.3SG is.3SG is.3SG animal PROG
 but um@fp the um@fp then a [/] a [/] an animal um@fp um@fp

[/] yn dod allan o 'r twll dydy o ddim yn um@fp mochyn # ddaer um@fp ond
 PROG come out from the hole is.3SG.NEG he NEG PRED pig(m) \earth but
 [/] comes out of the hole it isn't a um@fp ground, hog um@fp but

um@fp dw i ddim yn gwybod be' anifail ydy o (paid poeni) rhywbeth Americanaidd
 is.1SG I NEG PROG know what animal COP he don't worry something American
 um@fp I don't know what animal is (don't worry) something American

xxx siŵr-o-fod # um@fp <gopher or ya> # iawn ac um@fp mae 'r bachgen yn um@fp
 probably ok and is.3SG the boy PROG
 xxx probably, um@fp <gopher or ya>, okay and um@fp the boy um@fp

[/] yn [/] yn dringo um@fp &coe coeden # ac um@fp # mae 'r haid yn disgyn i 'r
 PROG PROG climb tree and is.3SG the swarm PROG fall to the
 [/] [/] climbs um@fp a &co a tree, and um@fp, the swarm falls to the

llawr ## um@fp ## ac beth sy 'n digwydd wedyn ydy 'r [//] mae 'r um@fp <gwenyn>
 ground and what is.REL PROG happen then COP the is.3SG the
 ground. Um@fp. And what happens then is the [//] the um@fp <bees>

um@fp xxx <ya> yn [/] yn um@fp yn mynd ar ôl y ci # a maen nhw eisiau um@fp
 -- PROG PROG PROG go on track the dog and is.3PL they want
 um@fp xxx <ya> [/] um@fp go after the dog, and they want um@fp

picio fo [/] picio o fo um@fp # ac yn um@fp lle oedd y [/] yr [/] y [/] y
 xxx [%pigo - sting] he xxx he he and in where was.3SG the the the the
 to sting him sting him him um@fp, and um@fp where was the [/] the [/] the [/] the

[/] y [/] y coeden [/] lle um@fp [/] lle oedd y [/] y [/] y bachgen yn [/] yn dringo [/]
 the the tree(f) where where was.3SG the the the boy PROG PROG climb
 [/] the [/] the tree [/] where um@fp [/] where was the [/] the [/] the boy [/] climbing [/]

yn dringo mae 'na ## gwddihw yn y De um@fp <ya> gwddihw yn [/] yn dod allan o
 PROG climb is.3SG there owl in the South owl PROG PROG come out of
 climbing there's. An owl in the South um@fp <ya> coming [/] coming out from

'r [/] o 'r goeden (tylluan yn y Gogledd) <ya> tylluan diolch yn dod allan o 'r
 the from the \tree(f) owl in the North owl thanks PROG come out from the
 the [/] from the tree (owl in the North) <ya> owl thanks coming out of the

um@fp goeden um@fp ## ac um@fp # yn &ma mae 'n debyg fod y dywyllan
 \tree(f) and ADV is.3SG PRED \similar \is.COMP the xxx
 um@fp tree um@fp. And um@fp, &ma it's likely that the xxx

yn [/] yn um@fp [/] yn bygythi 'r hogyn # um@fp ## wedyn uh@fp mae
 PROG PROG PROG xxx [%bygwith -threaten] the boy then is.3SG
 [/] um@fp [/] threatens the boy, um@fp. Then uh@fp the

'r bachgen um@fp um@fp yn symud um@fp [//] yn dringo um@fp # carreg a [/] a [/] a
 the boy PROG move PROG climb rock and and and
 boy um@fp um@fp moves um@fp [//] climbs um@fp, a rock and [/] and [/] and

maen nhw 'n um@fp gweiddi um@fp um@fp i er-mwyn um@fp [/] er mwyn um@fp um@fp
 is.3PL they PROG shout to in.order in.order
 they shout um@fp um@fp to in order um@fp [/] in order um@fp um@fp

dod-o-hyd-i 'r ffrog um@fp ## ond # iawn um@fp dw i ddim yn cofio 'r um@fp
 find the frog but okey is.1SG I NEG PROG remember the
 to find the frog um@fp. But, okey, I don't remember the um@fp

enw am <deer> ond mae 'na um@fp <deer> sy 'n um@fp codi ei ben i-fyny ac
 noun for but is.3SG there is.REL PROG raise his \head up and
 noun for <deer> but there's a um@fp <deer> which is um@fp raising his head up and

um@fp um@fp efo bachgen um@fp ar [/] ar ei [/] ar ei ben [/] ar y pen um@fp um@fp ##
 -- with boy on on his on his \head on the head
 um@fp um@fp with a boy um@fp on [/] on his [/] on his head [/] on the head um@fp um@fp.

ac mae 'r um@fp <deer> yn rhedeg efo 'r bachgen ar ei [/] ar ei [/] ar ei pen # um@fp
 and is.3SG the PROG run with the boy on his on his on his head
 And the um@fp <deer> runs with the boy on his [/] on his [/] on his head, um@fp

efo ci yn [/] yn dilyn ac mae 'n [/] mae 'n stopio yn sydyn # ac mae 'r
 with dog PROG PROG follow and is.3SG PROG is.3SG PROG stop ADV sudden and is.3SG the
 with a dog [/] following and he's [/] he stops suddenly, and the

um@fp [/] mae 'r bachgen a 'r ci hefyd um@fp um@fp yn [/] yn [/] yn cwmpo #
 is.3SG the boy and the dog also PROG PROG PROG fall
 um@fp the boy and the dog also um@fp um@fp [/] [/] falls,

i-lawr i rhyw um@fp # [/] i 'r dŵr mae 'na dŵr um@fp fan 'na um@fp rhyw
 down to some to the water is.3SG there water \place there some
 down to some um@fp, to the water there's water um@fp there um@fp some

um@fp pwll neu rhywbeth fel 'na um@fp felly mae [/] mae [/] mae 'r ddau yn um@fp
 pool or something like that so is.3SG is.3SG is.3SG the \two(m) PROG
 um@fp pool or something like that um@fp so [/] [/] the two um@fp

[/] yn [/] yn disgyn i 'r uh@fp uh@fp um@fp [/] i 'r dŵr ac # um@fp # maen nhw 'n
 PROG PROG fall to the to the water and is.3PL they PROG
 [/] [/] fall to the uh@fp uh@fp um@fp [/] to the water and, um@fp, they

clywed rhywbeth ## a mae 'r bachgen yn deud <shh> um@fp wrth y ci # a xxx maen
 hear something and is.3SG the boy PROG say to the dog and is.3PL
 hear something. And the boy tells the dog <shh>, and xxx they

nhw 'n chwilio um@fp [/] maen nhw 'n um@fp edrych tu ôl i [/] i # um@fp rhyw
 they PROG look is.3PL they PROG look side track to to some
 look um@fp [/] they um@fp look behind [/], um@fp some

um@fp <trunk>-oi neu coeden coeden # a beth ydy o um@fp tu ôl i 'r [/] i 'r coeden
 -xxx or tree tree and what COP he side track to the to the tree(f)
 um@fp <trunk> or tree tree, and what is it um@fp behind the [/] behind the tree

[/] coeden wedi marw sy wedi disgyn # mae 'r dau # ffrog um@fp um@fp ac hefyd
 tree PRF die is.REL PRF fall is.3SG the two frog and also
 [/] dead tree which has fallen, the two, frogs um@fp um@fp and also

um@fp # mae 'r dau ffrog mae gynn-on nhw [/] mae gynn-on nhw um@fp plant felly
 is.3SG the two frog is.3SG with-them they is.3SG with-them they children so
 um@fp, there are two frogs they have [/] they have um@fp children so

ffrog-<s> bach # um@fp # felly # um@fp maen nhw 'n deud um@fp um@fp um@fp [/]
 frog little so is.3PL they PROG say
 little frogs, um@fp, so, um@fp they say um@fp um@fp um@fp

maen nhw 'n um@fp [/] maen nhw 'n deud um@fp hwyl # wrth [/] wrth y ffrog-<s> #
 is.3PL they PROG is.3PL they PROG say goodbye to to the frog
 [/] they um@fp [/] they say um@fp goodbye, to [/] to the frogs,

a mae 'n ° y [/] maen nhw 'n mynd â [/] ag un ohonyn nhw ## mae 'n [/]
 and is.3SG PROG is.3PL they PROG go with with one of-them they is.3SG PROG
 and it's ° y [/] they take [/] one of them. It's

mae 'n &ddeg maen nhw 'n mynd adre nawr wel dw i 'n credu maen nhw
 is.3SG PROG is.3PL they PROG go homeward now well is.1SG I PROG believe is.3PL they
 [/] It's &ddeg they go home now well I think they are

mae 'r [/] mae 'r bachgen a 'r &hog [/] a 'r ci yn [/] yn mynd adre a maen
 is.3SG the is.3SG the boy and the and the dog PROG PROG go homeward and is.3PL
 the [/] the boy and the &hog [/] and the dog go home and they

nhw 'n um@fp um@fp deud um@fp um@fp hwyl wrth [/] wrth y ffrog-<s> ond maen nhw
 they PROG say goodbye to to the frog but is.3PL they
 um@fp um@fp say um@fp um@fp goodbye to to the frogs but they

'n mynd ag un o-honyn nhw # um@fp dw i ddim yn deall # yr ystyr o
 PROG go with one of-them they is.1SG I NEG PROG understand the meaning of
 take one of them, um@fp I don't understand, the meaning of

hynny um@fp ond um@fp (xxx) ond <ya> 'na fo
 that but but there's he
 that um@fp but um@fp (xxx) but <ya> there it is.

mae 'r bachgen a 'r gi a <frog?> <frog what's a frog?> (broga) broga ## y broga yn
is.3SG the boy and the \dog(m) and frog frog the frog in
The boy and the dog and and <frog?> <frog what's a frog?> (frog) frog. The frog in

um@fp [/] yn yr ## jar y bachgen wedi blino # a fe [/] a fe xxx a gi ## y broga mynd
in the jar the boy PRF tire and he and he and dog the frog go
um@fp [/] in the. Jar the boy tired, and he [/] and he xxx and a dog. The frog go

allan ## a mae 'r bachgen a 'r uh@fp gi uh@fp <what's look for?> (edrych? neu chwilio
out and is.3SG the boy and the \dog(m) look or look
out. And the boy and the uh@fp <what's look for?> (look? or search

am) yn yr [/] yr tir yn [/] yn yr allan ## uh@fp a 'r gi 'r uh@fp torri 'r um@fp
for in the the land in in the out and the \dog(m) the broke the
for) in the [/] the land in [/] in the out. Uh@fp and the dog the uh@fp break the um@fp

<bottle> ### bachgen ar [/] ar canu y broga ##### <wasps what are wasps?> (gwenyn <is
boy on on sing the frog bees
<bottle>. Boy about to about to sing the frog. <Wasps what are wasps?> (bees <is

bees>) gwenyn yn [/] gwenyn yn mynd allan a 'r ## <rat> # <rat beard> uh@fp ##### <I'm
bees PROG bees PROG go out and the
bees>) bees [/] bees go out, and the. <Rat>, <rat beard>, uh@fp. <I'm

lost on this one looking in a hole in a tree> uh@fp <what's tree> (coeden?) coeden <that's right>
-- tree tree
lost on this one looking in a hole in a tree> uh@fp <what's tree> (tree?) tree <that's right>

coed <is the woods isn't it> # <right> # twll yn y coeden ##### <it's an exciting story this> #
forest hole in the tree(f)
forest <is the woods isn't it>, <right>, hole in the tree. <It's and exciting story this>,

um@fp # yr gi # yr xxx <that one beats me> ## &ad aderyn [/] aderyn yr # <has appeared>
the \dog(m) the bird bird the
um@fp, the dog the xxx <that one beats me>. &Ad a bird [/] bird the, <has appeared>.

<the boy is now shouting from on top of a [/] on top of a> # <my Welsh is getting worse as
--
<The boy is now shouting from on tope of a [/] on top of a>, <my Welsh is getting worse as

I'm reading this> # um@fp <from on top of a rock> ##### <deer is> (carw <is stag>) carw ## <god
-- stag stag
I'm reading this>, um@fp <from on top of a rock>. <Deer is> (stag <is stag>) stag. <God

it's not suitable for children this> (xxx) ## yr [/] yr bachgen yn mewn i 'r dŵr ### a 'r
-- the the boy PRED in to the water and the
it's not suitable for children this> (xxx). The [/] the boy into the water. And the.

####<finds the frog what's find the frog> (ffeindio'r broga) ffeindio [/] ffeindio'r broga i 'r
 -- find the frog find find the frog to the
 <Finds the frog what's find the frog> (find the frog) find [/] find the frog to the

uh@fp ## brogau bach ##### <I> ## uh@fp <that's all the story from me>
 frogs little

uh@fp. Little frog(s). <I>. Uh@fp <That's all the story from me>.

[%*broga*, *brogaod/brogaed* - frog, frogs; *brog-au* is not a standard plural form for *broga*, but *-au* is the most productive Welsh plural suffix.]

<right> um@fp mae 'n um@fp nos a mae 'r bachgen bach 'ma wedi um@fp cael
 -- is.3SG PRED night and is.3SG the boy little here PRF get
 <Right> um@fp it's night and this little boy has um@fp gotten

broga? [/] broga? (broga <ya>) [/] broga <yes> a wedi rhoi e mewn um@fp [/] mewn
 frog frog frog frog and PRF put he in in
 a frog? [/] frog? (frog <ya>) [/] frog <yes> and has put it in um@fp [/] in

<glass> # mae 'n jar # a mae 'n um@fp ci bach e yn edrych ar-no fe a
 -- is.3SG PRED jar and is.3SG PRED dog little he PROG look on-him he and
 <glass>, it's a jar, and there's a little dog looking at it and

oedd e 'n &sylwedd sylw[i] e 'n iawn <oh my Welsh is xxx right ok> um@fp wedyn
 was.3SG he PROG notice he PRED okey then
 he was &sylwedd noticing he's okey <oh my Welsh is xxx right okey> um@fp then

oedd amser nhw i 'r bachgen bach mynd i 'r gwely # a aeth i gwely a ci
 was.3SG time they to the boy little go to the bed and went.3SG to bed and dog
 it was their time for the little boy to go to bed, and he went to bed and a little dog

bach yn eistedd ar y gwely gyda bachgen bach # ond mae 'r broga yn um@fp mynd
 little PROG sit on the bed with boy little but is.3SG the frog PROG go
 sitting on the bed with a little boy, but the frog um@fp is going

i dod [/] mae 'n dod mas o 'r um@fp jar ## pan o-'n nhw 'n um@fp oh@fp [/]
 to come is.3SG PROG come out of the jar when was-3PL they PROG
 to come [/] he comes out of the um@fp jar. When they were um@fp oh@fp [/]

oedd bore nawr um@fp a mae 'r bachgen bach mynd i # [/] mae 'n edrych am
 was.3SG morning now and is.3SG the boy little go to is.3SG PROG look for
 it was morning now um@fp and the little boy is going to [/] he looks for

y broga # ond mae wedi mynd ## a 'r ci yn sylweddoli hefyd oedd e wedi
 the frog but is.3SG PRF go and the dog PROG realize also was.3SG he PRF
 the frog, but [he] has gone. And the dog realizes also he had

mynd oh@fp 'na drueni ## ond 'na fe maen nhw 'n edrych am y broga nawr
 go that's \pity but there's he is.3PL they PROG look for the frog now
 gone oh@fp that's a pity. But there it is they are looking for the frog now

a nhw 'n edrych mewn esgidiau neu <boots> xxx fe 'n galw <boots> fallai # a 'r
 and they PROG look in shoes or he PROG call maybe and the
 and they looking in shoes or <boots> xxx he's calling <boots> maybe, and the

ci yn # wel twp iawn # wedi rhoi ei penest [/] ei [/] ei [/] ei um@fp wyneb yn y [/] yn yr
 dog PRED well stupid very PRF put his xxx his his his face in the in the
 dog , well very stupid, has put his xxx [/] his [/] his [/] his um@fp face in the [/] in the

jar ## naw 'n edrych mas &tr uh@fp trwy 'r uh@fp [/] i 'r &tr trwy 'r ffenest 'ma
 jar now PROG look out through the to the through the window here
 jar. Now looking out &tr uh@fp through the uh@fp [/] to the &tr through this window

a maen nhw 'n galw <dw i 'm gwybod beth oedd enw y broga> ## a <oh>
 and is.3PL they PROG call is.1SG I NEG know what was.3SG name the frog and
 and they call <I don't know what the name of the frog was>. And <oh>

[/] a mae 'r ci nawr wedi cwmpo [/] cwmpo # [/] cwmpo i-lawr yn &med [/] wedi
 and is.3SG the dog now PRF fall fall fall down PROG PRF
 and the dog now has fallen [/] fallen, [/] fallen down &med

torri 'r <vase> neu jar <dw i 'm gwybod beth yw e> # a mae 'r bachgen yn #
 break the or jar is.1SG I NEG know what COP he and is.3SG the boy PROG
 broken the <vase> or jar <I don;t know what it is>, and the boy

[/] ddim yn hoffi bod e wedi neud hwnna ## <reit> nawr te maen nhw 'n um@fp
 NEG PROG like is.COMP he PRF do that now then is.3PL they PROG
 [/] doesn't like that he has done that. <Reit> now then they um@fp

galw nawr am y broga ond mae 'n gallu [/] 's dim # [/] 's dim <good>
 call now about the frog but is.3SG PROG can is.3SG.NEG NEG is.3SG.NEG NEG
 call now for the frog but he can [/] there is not, [/] there is not <good>

results> dim <results> da iawn a galw galw galw # a mae 'na lot o pethau yn
 -- NEG good very and call call call and is.3SG there many of things PROG
 results> not very good <results> and calling calling calling, and there are a lot of things

xxx fan hyn # <bees> fallai <dw i 'm gwybod> <oh ya> # mae 'n wedi um@fp
 \place this maybe is.1SG I NEG know is.3SG PROG PRF
 xxx here, <bees> maybe <I don't know>, <oh ya>, he has um@fp

ffeindio'r &n um@fp ## <nest bees nest> # a mae 'r bachgen yn gwybod bod nhw
 find the and is.3SG the boy PROG know is.COMP they
 found the &n um@fp. <Nest bees nest>, and the boy knows that they

'n gallu um@fp rhoi <sting>-io ffenest uh@fp uh@fp [/] ei wyneb # a ci yn mynd
 PROG can put -INF window his face and dog PROG go
 can um#fp put stinging window uh@fo uh@fp [/] his face, and a dog going

ymlaen y coed ## a oh@fp [/] a mae broga &m mewn xxx <ya> fallai # <dw i 'm
 forward the trees and and is.3SG frog in maybe is.1SG I NEG
 forward the trees. And oh@fp [/] and a frog &m in xxx <ya> maybe, <I don't

yn gwybod> ond xxx diwedd &fa &fa rhywbeth arall ## maen nhw 'n edrych i
 PROG know but end something other is.3PL they PROG look to
 know> but xxx end &fa &fa something else. They look inside

mewn i 'r um@fp coed ## mae 'r ci uh@fp yn ofni nawr mae 'n gwybod bod
 in to the trees is.3SG the dog PROG fear now is.3SG PROG know is.COMP
 the um@fp trees. The dog uh@fp fears now he knows that

y <bees> gallu bod yn ddim yn neis ## a mae <owl> yn y [/] yn y coed a
 the able be.INF PRED NEG PRED nice and is.3SG in the in the trees and
 the bees can be not nice. And there is an <owl> in the [/] in the trees and

mae 'r bachgen bach wedi cwmpo # a mae 'r ci yn rhedeg rhedeg bant achos
 is.3SG the boy little PRF fall and is.3SG the dog PROG run run away because
 the little boy has fallen, and the dog runs runs away because

bod y [/] y <bees> yn # mynd arno fe ## <oh god> # um@fp # nawr 'te # um@fp xxx
 is.COMP the the PROG go on-him he now then
 the [/] the bees are, going on him. <Oh god>, um@fp, now then, um@fp xxx

bachgen dim yn gwybod beth i neud a <really> bod e 'n ofni nawr bod y
 boy NEG PROG know what to do and is.COMP he PROG fear now is.COMP the
 a boy not knowing what to do and <really> that he is fearing now that the,

<owl> a mae 'n &fr un &fr un &la um@fp oh@fp <sorry pathetic> # <my Welsh is
 -- and is.3SG PROG one one
 <owl> and he's &fr one &fr one &la um@fp oh@fp <sorry pathetic>, <my Welsh is

terrible> # um@fp mae 'r bachgen mynd lan um@fp ### <cliff>-an? <sorry I'm really bad
 -- is.3SG the boy go up -SG
 terrible>, um@fp the boy goes up um@fp a <cliff?>. <Sorry I'm really bad today

today anyway> um@fp # a mae gafr uh@fp yn edrych ar y bachgen mae 'r bachgen
 -- and is.3SG goat PROG look on the boy is.3SG the boy
 anyway> um@fp, and there's a goat uh@fp looking at the boy the boy

yn cwmpo a mae 'r ci yn cwmpo # cwmpo lawr lawr lawr ## lawr i 'r
 PROG fall and is.3SG the dog PROG fall fall down down down down to the
 falls and the dog falls, falls down down down. Down to the

dŵr # mewn pwll ## ond um@fp popeth yn iawn # a mae 'r bachgen yn edrych
 water in pool but everything PRED okay and is.3SG the boy PROG look
 water, in a pool. But um@fp everything's ok, and the boy is looking

ar ôl y cŵn [/] ci [/] ci # a mae e 'n deud <sh> ## mae wedi weld rhywbeth
 on track the dogs dog dog and is.3SG he PROG say is.3SG PRF \see something
 after the dogs [/] dog [/] dog, and he says <sh>. He has seen something

<dw i 'n credu> ## a mae 'n dros um@fp # rhywbeth wedi torri # a beth maen
 is.1SG I PROG believe and is.3SG PROG over something PRF break and what is.3PL
 <I think>. And he's over um@fp, something broken, and what are

nhw 'n ond dau frogau ## a wedyn lot llawer o 'r plentyn bach brogau ## a # nawr
 they PROG but two \frogs and then many many of the child little frogs and now
 they but two frog[s]. And then many many of the little child frog[s]. And, now

maen nhw 'n hapus iawn bod nhw wedi ffeidio 'r peth o-'n nhw 'n edrych
 is.3PL they PRED happy very is.COMP they PRF find the thing was-3PL they PROG look
 they are very happy that they have found the thing they were looking

am # a beth # llawer o nhw <k?> <dw i ddim yn gwybod bod e 'n iawn>
 for and what many of them is.1SG I NEG PROG know is.COMP he PRED okey
 for, and what, many of them. <K?> I don't know that it's okey.

[%*broga*, *brogaod/brogaed* - frog, frogs; *brogau* is not a standard plural form of *broga* but *-au* is the most productive plural ending]

Rwan sy gyda ni bachgen bach o hogyn bach yn sbio a ci yn sbio mewn
 now is.REL with we boy little of boy little PROG look and dog PROG look in
 Now we have a little boy of little boy looking and a dog looking in

rhyw jar # a pwy sy 'n y jar? llyfant # a lle ydan ni? dan ni yn y beth
 some jar and who is.REL in the jar frog and where is.1PL.Q we is.1PL we in the what
 some jar, and who's in the jar?, and where are we? We are in the what's

sy 'n amlwg stafell y hogyn bach a mae gyda 'r nos a mae 'r xxx lleuad yn
 is.REL PRED clear room the boy little and is.3SG with the night and is.3SG the moon in
 obviously the little boy's room and it's night and the xxx moon in

uh@fp [/] yn y [/] yn y awyr tu allan ## a beth sy gyda ni fan 'ma? oh@fp <ya ya ya>
 -- in the in the sky side out and what is.REL with we place here
 uh@fp [/] in the [/] in the sky outside. And what do we have here? oh@fp <ya ya ya>

um@fp llun arall # a jyst uh@fp [/] a maen nhw 'n cysgu [/] 'r hogyn bach a 'r
 -- picture other and just and is.3PL they PROG sleep the boy little and the
 um@fp another picture, and just uh@fp [/] and they are sleeping [/] the little boy and the

ci yn cysgu a mae 'r llyffant # yn neidio allan o 'r jar # a be' nesa? mae
 dog PROG sleep and is.3SG the frog PROG jump out from the jar and what next is.3SG
 dog are sleeping and the frog, jumps out of the jar, and what next?

'r uh@fp hogyn a 'r ci yn ddeffro a gweld bod y jar yn wag ## um@fp # a
 the boy and the dog PROG \wake and see is.COMP the jar PRED \empty and
 The uh@fp boy and the dog wake up and se that the jar is empty. Um@fp, and

maen nhw 'n sbio ym bobman yn yr ystafell am yr llyffant # dim olwg
 is.3PL they PROG look in \everywhere in the room for the frog NEG \view
 they look everywhere in the room for the frog, no sight

o-'no fo # a wedyn sbio allan o 'r ffenest y ci bach yn gwisgo jar fel het
 from-him he and then look out from the window the dog little PROG wear jar like hat
 of him, and then looking out of the window the little dog wearing a jar like a hat

<mwy neu lai> a maen nhw 'n gweiddi llyffant llyffant le dach chi mae 'r
 more or less and is.3PL they PROG shout frog frog \where is.2PL you.PL is.3SG the
 <more or less> and they are shouting 'frog frog where are you' the

oh@fp <diw diwcs-diwcs> be' nesa mae 'r uh@fp ci yn syrthio allan o 'r ffenest
 -- god my-my what next is.3SG the dog PROG fall out from the window
 oh@fp <god my-my> what next the uh@fp dog falls out of the window

a mae 'r jar gwydr yn torri ym bobman # um@fp mae 'r # wel dyn ni 'n
 and is.3SG the jar glass PROG break in\ \everywhere is.3SG the well is.1PL we PROG
 and the glass jar breaks everywhere, um@fp the, well we

sbio ar gwyneb y hogyn bach # ydy o ofn # ydy o flin efo 'r ci # wn
 look on face the boy little is.3SG.Q he fear is.3SG.Q he \angry with the dog is.1SG I
 are looking at the face of the little boy, is it fear, is he angry with the dog, I

i ddim yn saff # wel mae 'r ci yn llyfu boch-au yr hogyn fach ## um@fp a wedyn
 I NEG PRED sure well is.3SG the dog PROG lick cheek-s the boy(m) little and then
 am not sure, well the dog is licking the cheeks of the little boy. Um@fp and then

xxx nesa allan o-'n nhw yn yr wlad # uh@fp yn uh@fp # be' coedwig mwy neu lai
 -- next out was-3PL they in the \country(f) in what forest more or \less
 xxx next out they were in the country, uh@fp in uh@fp, what forest more or less

a mae 'na lot o goed o-gwmpas a dw i'n meddwl bod ni'n chwilio
 and is.3SG there many of \trees around and is.1SG I PROG think is.COMP we PROG search
 and there's a lot of trees around and I think that we are searching

[/] dal i chwilio am 'n hen ffrind y llyffant # dyn ni'n sbio mewn dwll #
 continue to search for our old friend the frog is.1PL we PROG look in \hole
 [/] still searching for our old friend the frog, we look in a hole,

yn y ddaear # &t oh@fp beth sy 'n dod allan o twll? cwningen <timod>
 in the \earth(f) what is.REL PROG come out from hole rabbit you.know
 in the ground, &t what comes out of [the] hole? rabbit <y'know>

<dw i'n meddwl> nage dim cwningen wiw[e]r # a wedyn um@fp mae 'r ci
 is.1SG I PROG think no NEG rabbit \squirrel and then is.3SG the dog
 <I think> no not a rabbit a squirrel, and then um@fp the dog

yn &s mynd at rhyw goeden a beth sy 'n yma 'na ond # gwenwyn [/] gwenyn?
 PROG go to some \tree and what is.REL PRED here there but poison bees
 &s goes to some tree and what's here there but, poison [/] bees?

um@fp um@fp dal i sbio [/] dal i sbio ## um@fp mae hogyn bach wedi dringo
 -- continue to look continue to look is.3SG boy little PROG climb
 um@fp um@fp still looking [/] still looking. Um@fp a little boy has climbed

'r goeden sbio 'm bobman # oh@gp mae 'di disgyn y oh@fp [/] y gwdihwhw # mae
 the \tree(f) look in\ everywhere is.3SG PRF fall the the owl is.3SG
 the tree look everywhere, oh@fp [he] has fallen the oh@fp [/] the owl, there's

'na air arall am <owl> y gwdihwhw wedi dychryn y hogyn a mae 'di [/] mae 'di
 there \word other for the owl PRF frighten the boy and is.3SG PRF is.3SG PRF
 another word for <owl> the owl having frightened the boy and [he] has [/] [he] has

[/] mae 'di ddisgyn ar ei gefn # mae cymaint o ofn gyda fe 'te a mae 'r ci
 is.3SG PRF \fall on his \back is.3SG so.much of fear with he then and is.3SG the dog
 [/] [he] has fallen on his back, he has so much fear then and the dog

rhe[d]eg i-ffwrdd hefyd a mae 'r 'da holl wenyn ar ei ôl o # a wedyn mae 'na
 run away also and is.3SG the with all \bees on his track he and then is.3SG there
 run away also and the with all the bees after him, and then there's

jac-do mawr oh@fp yn y wlad ac &ella <ya ya> # mae 'r hogyn dal ofn yr # na
 jackdaw big in the \country(f) and is.3SG the boy continue fear the no
 a big jackdaw oh@fp un the country and &ella <ya ya>, the boy holds fear, no

dim y jac-do # y gwdihwhw yw hwnna ## a wedyn # um@fp mae 'r hogyn yn
 NEG the jackdaw the owl COP that and then is.3SG the boy PROG
 not the jackdaw, that's the owl. And then, um@fp the boy

dringo rhyw boncen fach a gweiddi <dw i 'n siwr> [/] gweiddi llyffant llyffant lle
 climb some \mound(f) \little and shout is.1SG I PRED sure shout frog frog where
 climbs some little mound and shouts <I'm sure> [/] shouts 'frog frog where

wyt ti? um@fp oh@fp <be' nesa> # mae 'r &b [/] mae 'r hogyn 'di cael ei ddal gan
 is.2SG you what next is.3SG the is.3SG the boy PRF get his \catch by
 are you?' Um@fp oh@fp <what next>, the &b [/] the boy has been caught by

rhyw # <be' 'dy hynny> <gawr?> rhyw na gawr y xxx # um@fp a mae 'r gawr
 some what COP that giant some no giant the and is.3SG the giant
 some, <what's that> <a giant?> some no giant the xxx, um@fp and the giant

yn cario yr hogyn &i-ffwr i-ffwrdd mae 'r ci dal efo fo a xxx 'n dod i ochr
 PROG carry the boy away is.3SG the dog continue with he and PROG come to side
 carries the boy &i-ffwr away the dog is still with him and xxx come to a side

wel rhyw ddibyn mawr # <beth sydd yn digwydd> # aeth [/] dyn nhw yn neidio
 well some \cliff big what is.REL PROG happen went.3SG is.3PL they PROG jump
 well some big cliff, <what's happening>, [he] went [/] they jump

dros hwnna <pwyr a wyr> # na' 'da' chi nesa # oh@fp <ya> mae 'n wedi taflu
 over that who REL know.3SG now with you next is.3SG PROG PRF throw
 over that <who knows>, now [what] do you have next, oh@fp <ya> [he] has thrown

yr hogyn bach a 'r ci dros y ddibyn i mewn i <beth sy 'n edrych fel> llyn bach
 the boy little and the dog over the \cliff(m) to in to what is.REL PROG look like lake little
 the little boy and the dog over the cliff into <what looks like> a little lake

neu pwll <ya> dyna nhw y ci a 'r [/] y ci a 'r hogyn bach yn y ddŵr # a
 or pool there's they the dog and the the dog and the boy little in the \water(m) and
 or pool <ya> There they are the dog and the [/] the dog and the little boy in the water, and

dw i 'n falch ddeud bod y ddau yn edrych yn saff a mae 'r hogyn
 is.1SG I PRED \glad \say is.COMP the \two(m) PROG look PRED safe and is.3SG the boy
 I'm glad to say that the two look safe and the boy

efo ei law at ei glust yn gwrandio am rhywbeth a be' mae xxx y llyffant
 with his \hand to his \ear PROG listen about something and what is.3SG the frog
 with his hand at his ear listening for something and what is xxx the frog

<mae 'n siwr> y llyffant mae 'n deud # wrth y ci bach bod yn ddistaw #
 is.3SG PRED sure the frog is.3SG PROG say to the dog little be. INF PRED \silent
 <surely> the frog he tells, the little dog to be silent,

ble maen nhw 'di dod [/] maen nhw 'n dod i rhyw hen goeden sydd ar ei ochr
 where is.3PL they PRF come is.3PL they PROG come to some old \tree is.REL on his side
 Where they have come [/] they come to some old tree which is on its side

dal i chwilio <mae 'n siwr> ## <xxx a wyr> a <dyma ni> beth sydd
 continue to search is.3SG PRED sure REL know.3SG and here's we what is.REL
 still looking <surely>. <xxx knows> and <here we are> what do

[g]yda ni? # fwy na # llyffant llyffant-od # maen nhw 'n edrych fel mam a dad
 with we \more than frog frog-s is.3PL they PROG look like mother and \father
 we have? more than, a frog frogs, they look like a mother and a father

llyffant-od ac eu plant hefyd faint sy 'n yna mae 'na saith llyffant-od bach
 frog-s and their children also how.may is.REL PRED there is.3SG there seven frog-s little
 frogs and their children too how many are there there's seven little frogs,

a wedyn maen nhw [/] mae 'r hogyn yn edrych yn hapus iawn mae 'r ci
 and then is.3PL they is.3SG the boy PROG look PRED happy very is.3SG the dog
 and then the [/] the boy looks very happy the dog

yn edrych yn hapus iawn # maen nhw wedi ffeindio eu ffrind y llyffant ## a maen
 PROG look PRED happy very is.3PL they PRF find their friend the frog and is.3PL
 looks very happy, they have found their friend the frog. And

nhw 'n mynd â llyffant [/] un llyffant i-ffwrdd # ag &es ac beth &s <ya> a maen
 they PROG go with frog one frog away and and what and is.3PL
 they take a frog [/] one frog away, and &es and what &s <ya> and they

nhw 'n [/] maen nhw 'n deud <ta ta> i 'r holl llyffant-od eraill sydd yn eistedd a
 they PROG is.3PL they PROG say to the all frog-s other.PL is.REL PROG sit and
 [/] they say <ta ta> to all the other frogs who are sitting and

edrych digon uh@fp hapus efo beth sy 'n digwydd a dyna ni
 look enough happy with what is.REL PROG happen and there's we
 looking uh@fp happy enough with what's happening and here we are.

um@fp mae nos a mae 'n bachgen bach yn stafell gwely um@fp yn [/] yn edrych ar
 -- is.3SG night and is.3SG PROG boy little in room bed in in look on
 Um@fp [it]'s night and a little boy is in a bedroom um@fp [/] looking at

um@fp # brodyr? <frog>? yn [/] yn [/] yn jar a mae [/] mae [/] mae ci gyda fe a mae
 -- brothers in in in jar and is.3SG is.3SG is.3SG dog with he and is.3SG
 um@fp, brothers? <frog>? in [/] in [/] in a jar and there's [/] there's [/] there's a dog with him and

'n edrych fel mae 'n paratoi i gwely # um@fp ar yr ail tudalen mae
 PROG look like is.3SG PROG prepare to bed on the second page is.3SG
 [he] looks like he's preparing [for] bed, um@fp on the second page there's

bachgen # wedi cwmpo i gysgu a mae 'r um@fp [/] mae 'r ffrog yn dod mas o
 boy PRF fall to \sleep and is.3SG the is.3SG the frog PROG come out from
 a boy, fallen to sleep and the um@fp [/] the frog comes out of

'r [/] o 'r jar um@fp trio neud dim sŵn # <dw i 'n credu> mae nawr bore # a
 the from the jar try make NEG sound is.1SG I PROG believe is.3SG now morning and
 the [/] of the jar um@fp trying to make no sound, <I think> it's now morning, and

mae 'r bachgen yn styried uh@fp [/] mae 'r anifeiliad wedi [/] wedi mynd # a mae 'r
 is.3SG the boy PROG consider is.3SG the animal PRF PRF go and is.3SG the
 the boy is considering uh@fp the animal has [/] has gone, and the

ci 'da fe hefyd a maen nhw 'n edrych um@fp [/] yn edrych am-dano fe ## ydyn
 dog with he also and is.3PL they PROG look PROG look about-him he is.3PL.Q
 dog with him also and they are looking um@fp [/] looking for him. Are they

[/] maen nhw 'n edrych um@fp [/] mae 'r bachgen bach yn edrych trwy 'r stafell
 is.3PL they PROG look is.3SG the boy little PROG look through the room
 [/] they are looking um@fp [/] the little boy is looking through the room

mae 'n edrych neis um@fp ## [/] mae 'n edrych dan y gwely mae 'n edrych
 is.3SG PROG look nice is.3SG PROG look under the bed is.3SG PROG look
 he looking nice um@fp. [/] [He]'s looking under the bed [he]'s looking

yn ei # esgidiau # a mae 'n edrych am y [/] am yr anifeiliad # mae 'r bachgen yn
 in his shoes and is.3SG PROG look for the for the animal is.3SG the boy PROG
 in his, shoes, and [he]'s looking for the [/] for the animal, the boy

edrych tu mas hefyd maen nhw wedi agor y ffenest a maen nhw 'n edrych um@fp am
 look side out also is.3PL they PRF open the window and is.3PL they PROG look for
 looks outside also they have opened the window and they are looknig um@fp for

yr [/] am e # beth sy 'n digwydd nesa <oh> mae 'r ci wedi
 the for he what is.REL PROG happen next is.3SG the dog PRF
 the [/] for him, what happens next <oh> the dog has

[/] achos maen nhw 'n edrych mas o 'r ffenest mae 'r ci wedi mynd lan rhy
 because is.3PL they PROG look out from the window is.3SG the dog PRF go up too
 because they are looking out of the window the do has gone up too

gormod a mae wedi cwmpo mas ## mae 'r bachgen nawr wedi dod mas mae ddim
 too.much and is.3SG PRF fall out is.3SG the boy now PRF come out is.3SG NEG
 too much and [he] has fallen out. The boy now has come out [he] does not

yn edrych rhy hapus gyda 'r ci um@fp ond mae 'r ci yn eitha hapus i gael uh@fp
 PROG look too happy with the dog but is.3SG the dog PRED quite happy to \get
 look too happy with the dog um@fp but the dog is quite happy to get uh@fp

help o 'r bachgen ## maen nhw nawr yn yr ardd <dw i 'n credu> a mae 'r
 help from the boy is.3PL they now in the \garden(f) is.1SG I PROG believe and is.3SG the
 help from the boy. They are now in the garden <I think> and the

[/] mae 'r bachgen yn [/] yn # [/] yn galw ## um@fp mae [/] mae 'r dydd yn edrych
 is.3SG the boy PROG PROG PROG call is.3SG is.3SG the day PROG look
 [/] the boy is [/] is, [/] is calling. Um@fp the [/] the day is looking

yn hyfryd # a hefyd ddim rhy bell mae um@fp [/] mae <beehive> ddim yn edrych yn
 PRED lovely and also NEG too \far is.3SG is.3SG NEG PROG look PRED
 lovely, and also not too far there's um@fp there's a <beehive> not looking

xxx ## mae 'r bachgen wedi gweld y twll # yn yr ardd a mae 'n edrych lawr i
 -- is.3SG the boy PRF see the hole in the \garden(f) and is.3SG PROG look down to
 xxx. The boy has seen the hole, in the garden and [he]'s looking down to

gweld os mae 'n gallu gweld # y ffrog a mae 'r ci um@fp [/] mae e 'n # chwarae
 see if is.3SG PROG able see the frog and is.3SG the dog is.3SG he PROG play
 see if [he] can see, the frog and the dog um@fp he's, playing

'n xxx gyda 'r <hive> ## a wedyn mae [/] mae 'r bachgen yn gael tipyn-bach o [/] o
 ADV with the and then is.3SG is.3SG the boy PROG \get little-bit of of
 xxx-ly with the <hive>. And then [/] the boy gets a little bit of [/] of a

<start> achos mae # [/] mae rhyw &an # anifeil-ad wedi dod mas fel <mole> xxx rhywbeth ##
 -- because is.3SG is.3SG some animal-s PRF come out like something
 <start> because there's, [/] there's some &an animals come out like a <mole> xxx something.

um@fp a mae 'r [/] mae 'r bachgen dechrau # [/] mae 'n dal i edrych # mae
 -- and is.3SG the is.3SG the boy begin is.3SG PROG continue to look is.3SG
 Um@fp and the [/] the boy starts, [/] [he]'s still looking, [he]'s

'n edrych lan y coeden a wedi dringo 'r coeden mae 'n edrych mewn fan 'na
 PROG look up the tree(f) and PRF climb the tree(f) is.3SG PROG look in \place there
 looking up the tree and has climbed the tree [he]'s looking in there

a mae 'r ci <fi 'n credu> [/] mae wedi um@fp bwrw 'r <hive> dros y coeden a
 and is.3SG the dog I PROG believe is.3SG PRF throw the over the tree(f) and
 and the dog <I think> [/] [he] has um@fp thrown the tree and

mae 'r [/] mae 'r <bees> yn edrych fel maen nhw 'n dod eitha xxx uh@fp ydyn
 is.3SG the is.3SG the PROG look like is.3PL they PROG come quite is.3PL.Q
 the [/] the <bees> look like they are becoming quite xxx uh@fp are they

[/] maen nhw 'n nawr um@fp# yn # dilyn y ci maen nhw 'n eitha dawel a mae
 is.3PL they PROG now PROG follow the dog is.3PL they PRED quite \quiet and is.3SG
 [/] they are now, following the dog they are quite quiet and the

'r bachgen wedi # cwmpo 'n ôl wrth coeden achos mae um@fp [/] mae <owl> wedi rhoi
 the boy PRF fall in track at tree because is.3SG is.3SG PRF give
 boy has, fallen back at a tree because there's um@fp an <owl> have given

<start> i fe ## mae bachgen dal i edrych mae wedi dringo um@fp ar ben ## um@fp
 -- to he is.3SG boy continue to look is.3SG PRF climb on \head
 him a <start>. A boy is still looking [he] has climbed um@fp on top of. Um@fp

<pile of rocks?> # i edrych a hefyd mae wedi gweld [/] mae 'r um@fp [/] mae wedi
 -- to look and also is.3SG PRF see is.3SG the is.3SG PRF
 a <pile of rocks?>, to look and also [he] has seen [/] the um@fp [/] [he] has

gael <start> mae 'r [/] mae 'r [/] mae 'r <reindeer> wedi dod a mae wedi dringo 'r
 \get is.3SG the is.3SG the is.3SG the PRF come and is.3SG PRF climb the
 gotten a <start> the [/] the [/] the <reindeer> has come and [he] he has climbed the

y [/] ar ei <back> a mae xxx um@fp mae 'r bachgen wedi cwmpo lawr i 'r llawr
 the on his and is.3SG is.3SG the boy PRF fall down to the ground
 the [/] on his <back> and there's xxx um@fp the boy has fallen down to the ground

a maen nhw wedi cwmpo mewn i um@fp [/] i # [/] wedi cwmpo mewn i 'r dŵr ## nawr
 and is.3PL they PRF fall in to to PRF fall in to the water now
 and they have fallen into um@fp [/] to, [/] have fallen into the water. Now

mae 'n edrych fel mae 'r bachgen wedi clywed sŵn # mae wedi deud wrth y ci
 is.3SG PROG look like is.3SG the boy PRF hear sound is.3SG PRF say to the dog
 [it] looks like the boy has heard a sound, [he] has told the dog

bod yn dawel a mae 'n wedi mynd dros # ydy &y y tu ôl um@fp <log> mae
 be.INF PRED \quiet and is.3SG PROG PRF go over is.3SG.Q the side track is.3SG
 to be quiet and [he] has gone over, yes &y behind um@fp a <log> [he]

wedi gweld um@fp y ffrog mae wedi ffeindio ffrind-iau [/] ffrind um@fp [/] cariad a hefyd
 PRF see the frog is.3SG PRF find friend-s friend love and also
 has seen um@fp the frog [he] has found friends [/] a friend um@fp [/] a sweetheart and also

um@fp mae bachgen wedi gweld mae [/] mae 'r rhai bach 'da fe um@fp <smaller frogs>
 -- is.3SG boy PRF see is.3SG is.3SG the some little with he
 um@fp a boy has seen there's [/] these little ones with him um@fp <smaller frogs>,

ddim yn xxx wedi cymryd un o 'r rhai ifanc a mae wedi gadael um@fp yr un
 NEG PROG PRF take one of the some young and is.3SG PRF leave the one
 not xxx having taken one of the young ones and [he] has left um@fp the big

fawr gyda 'i cariad a 'r teulu
 \big with his sweetheart and the family
 one with his sweetheart and the family.

wel mae 'na bachgen bach yn eistedd ar-bwys y gwely a mae 'n edrych ar y
well is.3SG there boy little PROG sit near the bed and is.3SG PROG look on the
Well there's a little boy sitting near the bed and [he]'s lookin at the

ci yn edrych ar uh@fp broga sy tu fewn i # jar ## mae e [/] mae e yn y stafell
dog PROG look on frog is.REL side \in to jar is.3SG he is.3SG he in the room(f)
dog looking at uh@fp a frog who is inside, a jar. He's [/] he's in the bedroom

gwely um@fp mae e [/] mae 'r # [/] mae 'n nos [/] amser y nos yw hi ## yr un nes
bed is.3SG he is.3SG the is.3SG PRED night time the night COP she the one next
um@fp he's [/] the [/] [it]'s night, [/] it is nighttime. The next one

tudalen pedwar uh@fp mae 'r bachgen # yn cysgu nawr gyda 'r ci yn cysgu gyda fe ar
page four is.3SG the boy PROG sleep now with the dog PROG sleep with he on
page four uh@fp the boy, is sleeping now with the dog sleeping with him on

ei gwely a mae 'r ## broga yn # [/] yn dringo mas o 'r jar ### mae 'n bore
his bed and is.3SG the frog PROG PROG climb out from the jar is.3SG PRED morning
his bed and the. Frog is, [/] is climbing out of the jar, [it]'s morning

nawr # ar tudalen pump # mae 'r bachgen a 'r ci wedi deffro a mae 'r broga wedi
now on page five is.3SG the boy and the dog PRF wake and is.3SG the frog PRF
now, on page five, the boy and the dog have woken up and the frog has

mynd ### <is that enough ya?> hynny yn digon? mae 'n &ed [/] mae 'n chwilio am y
go that PRED enough is.3SG PROG is.3SG PROG look for the
gone. <Is that enough ya?> that enough? [He]'s looking for the

[/] am y broga nawr ## dyw 'r broga ddim yn y [/] yn y het [/] ddim yn y [/] y [/] y
for the frog now is.3SG.NEG the frog NEG in the in the hat NEG in the the the
[/] for the frog now. The frog isn't in the [/] in the hat [/] not in the [/] the [/] the

xxx # dim yn [/] yn &es [/] yn yr esgid ## ble mae e mae 'r ci yn [/] yn edrych yn
-- NEG in in in the shoe where is.3SG he is.3SG the dog PROG PROG look in
xxx, not in [/] in &es [/] in the shoe. Where is he the dog is [/] is looking in

y jar ## maen nhw 'n chwilio dros y [/] y [/] y # [/] yr ystafell gwely trwy 'r ystafell
the jar is.3PL they PROG look over the the the the room(f) bed through the room
the jar. They are looking over the [/] the [/] the, [/] the bedroom through the whole

i-gyd # yn chwilio am y broga maen nhw 'n edrych mas o 'r ffenest # mae 'n
all PROG search for the frog is.3PL they PROG look out from the window is.3SG PROG
room, looking for the frog they look out of the window, [he]'s

[/] mae 'r bachgen yn galw # dim &m dim yn wybod pam achos mae [/] dyw [/]
is.3SG the boy PROG call NEG NEG PROG \know why because is.3SG is.3SG.NEG
the boy is calling, not &m not knowing why because [it]'s [/] it isn't

dyw broga ddim yn deall # bachgen bach # mae 'r ci gyda 'r jar ar ei ben ##
 is.3SG.NEG frog NEG PROG understand boy little is.3SG the dog with the jar on his head
 [/] a frog doesn't understand, a little boy, the dog with the jar on his head.

mae 'r ci yn neidio mas o 'r ffenest ## mae 'r uh@fp bachgen yn [/] yn meddwl
 is.3SG the dog PROG jump out from the window is.3SG the boy PROG PROG think
 The dog jumps out of the window. The uh@fp boy is [/] is thinking

<fi 'n credu> [/] mae e 'n meddwl beth [/] beth mae 'n mynd i neud nesa ## nawr
 I PROG believe is.3SG he PROG think what what is.3SG PROG go to do next now
 <I think> [/] he thinks what [/] what [he]'s going to do next. Now

ni 'n gweld e mas ## fallai mae 'n poeni am y [/] am y ci <fi 'n credu> #
 we PROG see he out maybe is.3SG PROG worry about the about the dog I PROG believe
 we see him out. Maybe [he]'s worrying about the [/] about the dog <I think>,

a mae 'r # [/] mae o wedi mynd mas i helpu 'r ci a mae 'r jar wedi torri # a
 and is.3SG the is.3SG he PRF go out to help the dog and is.3SG the jar PRF break and
 and the [/] he has gone out to help the dog and the jar has broken, and

mae 'r ci yn llyo ei [/] ei [/] ei uh@fp gwyneb e ## nawr maen nhw yn y [/] yn yr
 is.3SG the dog PROG lick his his his face he now is.3PL they in the in the
 the dog is licking his [/] his [/] his uh@fp face. Now they are in the [/] in the

ardd <siwr-o-fod> maen nhw # [/] maen nhw 'n dal i chwilio am y broga ##
 \garden(f) probably is.3PL they is.3PL they PROG continue to search for the frog
 garden <probably> they are, [/] they are still looking for the frog.

maen nhw [/] mae 'r bachgen yn galw maen nhw 'n edrych # mae 'r ci yn edrych
 is.3PL they is.3SG the boy PROG call is.3PL they PROG look is.3SG the dog PROG look
 They are [/] the boy is calling they are looking, the dog is looking

ar y adar yn hedfan ## neu fallai maen nhw 'n # uh@fp gwenyn ydyn nhw fallai #
 on the birds PROG fly or maybe is.3PL they PRED bees is.3PL.Q they maybe
 at the birds flying. Or maybe they are, uh@fp bees are they maybe,

dim adar ## nawr # dw i 'n gallu gweld uh@fp dw i 'm yn gwybod beth yw
 NEG birds now is.1SG I PROG able see is.1SG I NEG PROG know what COP
 not birds. Now, I can see uh@fp I don't know what

'r gair am <hive> xxx <hive> gwenyn tŷ gwenyn <ok> ## cwch gwenyn <fi 'n credu>
 the word for bees house bees hive bees I PROG believe
 the word is for <hive> xxx <hive> bees house of bees <ok>. Beehive <I think>

yw [/] yw 'r gair # a &ma [/] a mae tipyn-bach o coedwig ar gwaelod yr ardd
 COP COP the word and and is.3SG little-bit of forest on bottom the garden(f)
 is [/] is the word, and &ma [/] and there's a little bit of a forest at the bottom of the garden

fallai ## a mae twll yn yr ardd # fallai bod y [/] y broga wedi mynd i 'r twll #
 maybe and is.3SG hole in the \garden(f) maybe is.COMP the the frog PRF go to the hole
 maybe. And there's a hole in the garden, maybe the [/] the frog has gone to the hole,

mae 'r # ci yn [/] yn [/] yn cyfar[t]h # y [/] y [/] y &gwe # mae 'n neidio lan at y [/]
 is.3SG the dog PROG PROG PROG bark the the the is.3SG PROG jump up to the
 the, dog is [/] is [/] is barking, the [/] the [/] the &gwe, [he]'s jumping up to the

at y # y # um@fp [/] y <hive> ## mae rhywbeth yn dod mas o 'r twll ond dw i
 to the the the is.3SG something PROG come out from the hole but is.1SG I
 [/] to the, the, um@fp [/] the <hive>. Something is coming out of the hole but I don't

ddim yn credu bod e 'n uh@fp # [/] taw broga yw e ## mae 'r ci wedi colli
 NEG PROG believe is.COMP he PROG is.COMP frog COP he is.3SG the dog PRF lose
 believe that he uh@fp, [/] that it's a frog. The dog has lost

diddordeb yn y [/] yn y twll a <'r bachgen bach> mae 'n [/] # mae 'n edrych ar y #
 interest in the in the hole and the boy little is.3SG PROG is.3SG PROG look on the
 interest in the [/] in the hole and the little boy [he]'s, [/] [he]'s looking at the,

[/] ar y gwenyn [/] ar y [/] ar y tŷ gwenyn ## ble mae 'r bachgen wedi mynd
 on the bees on the on the house bees where is.3SG the boy PRF go
 [/] at the bees [/] at the [/] at the house of bees. Where the boy has gone

mae 'r [/] # mae 'r tŷ gwenyn wedi cwmpo a mae 'r gwenyn i-gyd yn hedfan
 is.3SG the is.3SG the house bees PRF fall and is.3SG the bees all PROG fly
 the, [/] the house of bees has fallen and all the bees are flying

mas [/] hedfan i-ffwrdd ## fallai ### rhybeth fel &we <weasel> yw e ond fi 'n ffaelu
 out fly away maybe something like COP he but I PROG fail
 out [/] flying away. Maybe. It's something like &we <weasel> but I fail

cofio 'r enw uh@fp yn Gymraeg am <weasel> # wenci bach [/] wenci bach <dw i
 remember the name in \Welsh for \weasel little \weasel little is.1SG I
 to rememner the noun uh@fp in Welsh for <weasel>, little weasel [/] little weasel <I

'n credu yw e> (wenci bach) <ya> a dyma 'r y # [/] y bachgen yn [/] yn dal
 PROG believe COP he weasel little and here's the the the boy PROG PROG continue
 think is is (little weasel) <ya> and here's the the, [/] the boy [/] still

i chwilio am y broga nawr mae 'n edrych ar [/] ar y # [/] ar y coeden a # mae
 to look for the frog now is.3SG PROG look on on the on the tree(f) and is.3SG
 searching for the frog now [h]'s looking at [/] at the, [/] at the tree and, [he]'s

'n edrych yn y [/] yn y twll yn chwilio am y broga yn y [/] yn y twll # a mae
 PROG look in the in the hole PROG look for the frog in the in the hole and is.3SG
 looking in the [/] in the hole searching for the frog in the [/] in the hole, and there's

gwdihw yn dod mas # a mae 'r bachgen wedi cwmpo # a mae 'r &gwen gwenyn
 owl PROG come out and is.3SG the boy PRF fall and is.3SG the bees
 an owl coming out, and the boy has fallen, and all the &gwen bees

i-gyd yn hedfan o-gwmpas ## a maen nhw 'n uh@fp # mynd at y ci nawr ### a ble
all PROG fly around and is.3PL they PROG go to the dog now and where
are flying around. And they uh@fp, are going at the dog now. And where

mae e ble maen nhw nawr maen nhw wel [/] wel mae rhyw twmpath # maen nhw #
is.3SG he where is.3PL they now is.3PL they well well is.3SG some mound is.3PL they
is he where are they now they are well [/] well there's some mound, they are,

lawr yn y coedwig rhywle a mae 'r gwddihw yn hedfan o-gwmpas fallai
down in the forest(f) somewhere and is.3SG the owl PROG fly around maybe
down in the forest somewhere and the owl is flying around maybe

mae 'r [/] mae # ar-no fe ofn # y bachgen [/] mae ar-na y bachgen ofn y [/] y [/] y
is.3SG the is.3SG on-him he fear the boy is.3SG on-me the boy fear the the the
the [/] he's, afraid, the boy [/] the boy is afraid of the [/] the [/] the

gwddihw # mae wedi dringo lan y twmpath nawr a mae 'n # gweiddi # dw i 'm
owl is.3SG PRF climb up the mound now and is.3SG PROG shout is.1SG I NEG
owl, [he] has climbed up the mound now and [he]'s, shouting, I don't

gwybod pam mae 'n gweiddi xxx dw i ddim yn siwr bod y broga yn clywed
know why is.3SG PROG shout is.1SG I NEG PRED sure is.COMP the frog PROG hear
know why [he]'s shouting xx I'm not sure that the frog hears.

a nawr yn ni 'n gallu gweld beth ni 'n credu a fallai bod y bachgen
and now is.1PL we PROG able see what we PROG believe and maybe is.COMP the boy
And now we can see what we think and maybe the boy

yn credu bod # rhyw coeden bach yn tyfu tu ôl i 'r uh@fp y twmpath ond
PROG believe is.COMP some tree(f) little PROG grow side track to the the mound but
thinks that, some little tree grows behind the uh@fp the mound but

uh@fp carw yw e fallai # carw? # ydy # carw yw e a mae 'r carw yn mynd gyda
-- stag COP he maybe stag yes stag COP he and is.3SG the stag PROG go with
uh@fp it's a stag maybe, stag? yes, it's a stag and the stag is going with

'r bachgen yn sownd rhwng y [/] y cyrn ## a mae 'n rhedeg at # wel mae #
the boy PRED stuck between the the horns and is.3SG PROG run to well is.3SG
the boy stuck between the [/] the horns. And [he]'s running to, well there's,

clogwyn at uh@fp ymyl y clogwyn efallai mae [/] maen nhw gyd mynd i mynd dros yr ymyl #
cliff to edge the cliff maybe is.3SG is.3PL they all go to go over the edge
a cliff, [/] to the edge of the cliff maybe [/] they all going to go over the edge,

a mae 'r carw wedi # stopio # mae 'r ci yn cwmpo ar y bachgen hefyd # a
and is.3SG the stag PRF stop is.3SG the dog PROG fall on the boy also and
and, the stag has, stopped, the dog falls on the boy also, and

fi 'n credu bod nhw 'n cwmpo mewn i rhyw pwll yn bach # dim yn siwr
I PROG believe is.COMP they PROG fall in to some pond little NEG PRED sure
I think that they fall into some little pond, not sure

fallai ydyn nhw dan y ddŵr nawr ## fallai maen nhw wedi cwmpo lawr i pwll yn
 maybe is.3PL.Q they under the \water(m) now maybe is.3PL they PRF fall down to pond
 maybe are they under water now? Maybe they have fallen down to a pond.

na maen nhw [/] dyw e ddim yn dwfn iawn dw i ddim yn credu na ## a
 no is.3PL they is.3SG.NEG he NEG PRED deep very is.1SG I NEG PROG believe no and
 No they are [/] it isn't very deep I don't believe no. And

fallai maen nhw 'n mynd i ffeindio'r broga yn y pwll yn gawn ni weld ## mae
 maybe is.3PL they PROG go to find the frog in the pond \get.1PL.FUT we \see is.3SG
 maybe they are going to find the frog in the pond we'll see. The

'r uh@fp # bachgen yn [/] yn [/] yn gweud <sh> wrth y [/] y ci # fallai bod y broga tu
 the boy PROG PROG PROG say to the the dog maybe is.COMP the frog side
 uh@fp, boy [/] [/] tells the [/] the dog '<sh>', maybe the frog is

fewn i 'r [/] i 'r pren ## a dyna ni &ma maen nhw wedi ffeindio nhw # dau o-honyn
 \in to the to the wood and there's we is.3PL they PRF find they two of-them
 inside the [/] the wood. And there we are &ma they have found them, two of them.

nhw ## 'na pam oedd y broga wedi [/] wedi dianc fallai oedd e # a mae broga
 they that's why was.3SG the frog PRF PRF escape maybe was.3SG he and is.3SG frog
 That's why the frog had [/] had escaped maybe was it, and there's a little [/]

bach [/] bychain ## maen nhw 'n edrych yn hapus iawn mae 'r bachgen yn hapus
 little little is.3PL they PROG look PRED happy very is.3SG the boy PRED happy
 frog. They look very happy the boy is very happy,

iawn # achos mae e wedi ffeindio'r broga # a mae 'r ci yn hapus achos
 very because is.3SG he PRF find the frog and is.3SG the dog PRED happy because
 because he has found the frog and the dog is happy because the

bod y bachgen yn hapus # a mae 'r broga # yn hapus hefyd # a dyna diwedd
 is.COMP the boy PRED happy and is.3SG the frog PRED happy also and there's end
 boy is happy, and the frog, is happy also, and there's the end,

y stori
 the story
 of the story.

<ok> un noswaith oedd y [/] oedd bachgen uh@fp # a 'i ci bach um@fp yn stafell
 one evening was.3SG the was.3SG boy and his dog little in room(f)
 <Ok> one evening the [/] a boy was uh@fp, and his little dog um@fp were in a bedroom

gwely gyda ffrog # um@fp a nhw 'n edrych ar [/] ar-no fe oedd um@fp [/] oedd bron
 bed with frog and they PROG look on on-him he was.3SG was.3SG nearly
 with a frog, um@fp and they looking at [/] at him [he] was um@fp [/] [he] was nearly

i mynd i gwely # ac ar ôl i [/] i 'r bachgen # wedi mynd i gwely &ro oedd e
 to go to bed and on track to to the boy PRF go to bed was.3SG he
 to go to bed, and after [/] the boy, had gone to bed &ro he was

cysgu gyda ci ar y [/] ar y # [/] ar y gwely uh@fp ## aeth y ffrog mas o 'r um@fp
 sleep with dog on the on the on the bed went.3SG the frog out from the
 sleeping with a dog on the [/] on the, [/] on the bed uh@fp. The frog went out of the um@fp

<jam> jar ## ac wedi # mae ddim yn &ll [/] dim yma nawr a &ma mae yn y bore #
 -- jar and after is.3SG NEG PROG NEG here now and is.3SG in the morning
 <jam> jar. And [after], [he] isn't &ll [/] not here now and &ma [it]'s in the morning,

mae wedi mynd ac mae 'r bachgen a 'r ci yn edrych # y gwely amdano fe ond
 is.3SG PRF go and is.3SG the boy and the dog PROG look the bed for-him he but
 [he] has gone and the boy and the dog are looking, the bed for him but

maen nhw ddim yn gallu weld e o unrwyhle ## a maen nhw &r [/] maen nhw 'n
 is.3PL they NEG PROG able \see he from anywhere and is.3PL they is.3PL they PROG
 they aren't able to see him from anywhere. And they are &r [/] they are

edrych mewn popeth mewn [/] mewn ei sgidiau a dan y gwely ac yn y <jam> jar
 look in everything in in his shoes and under the bed and in the jar
 looking in everything in [/] in his shoes and under the bed and in the <jam> jar

a [/] a mewn pobeth arall uh@fp ond mae ddim xxx o-gwbl maen nhw edrych mas o
 and and in everything other but is.3SG NEG at-all is.3PL they look out from
 and [/] and in everything else uh@fp but there's no xxx at all they look out of

ffenest a mae 'r uh@fp ci wedi # cael ei # <jam> jar ar ei ben # um@fp ## a mae 'r
 window and is.3SG the dog PRF get his jar on his \head and is.3SG the
 a windoe and the uh@fp dog has, got his, <jam> jar on his head, um@fp. And the

bachgen yn galw uh@fp am [/] am y ffrog i ddod yn ôl ## ac &we ci [/] ci wedi uh@fp
 boy PROG call for for the frog to \come in track and dog dog PRF
 boy is calling uh@fp for [/] for the frog to come back. And &we a dog [/] dog

cwympo mas o 'r ffenestr ar [/] ar y &glas [/] ar ei uh@fp i 'r lawr a mae 'r [/]
 fall out from the window on on the on his to the \ground(m) and is.3SG the
 fallen out of the window on [/] on the &glas [/] on his uh@fp to the ground and the [/]

mae 'r <jam> jar <still> ar ei ben a pan # &o [/] pan roedd e ar y &la [/] ar y [/] ar
 is.3SG the jar on his \head and when when was.3SG he on the on the on
 [/] the <jam> jar is <still> on his head and when, &o [/] when he was on the &la [/] on the [/] on

y lawr um@fp torr-odd um@fp y <jam> jar ac mae 'r ci yn llyfu gwyneb y bachgen #
 the \ground(m) broke-3SG the jar and is.3SG the dog PROG lick face the boy
 the ground um@fp he broke um@fp the <jam> jar and the dog is licking the boy's face,

a maen nhw <still> galw mae 'na [/] mae 'na adar # yn yr awyr <i 'n credu> neu
 and is.3PL they call is.3SG there is.3SG there birds in the sky I PROG believe or
 and they are <still> calling there's [/] there are birds, in the sky <I think> or

fallai bod nhw 'n uuuh@fp &deili ond mae e ddim yn gallu weld e o-gwbl ## o-'n
 maybe is.COMP they PROG but is.3SG he NEG PROG able \see he at-all was-3PL
 maybe they are uuuh@fp &deili but he can't see ih at all. They were

nhw mas o-'n nhw mynd yn y coedwig ac yn y goedwig mae 'na ## [/] mae 'na ##
 they out was-3PL they go in the forest(f) and in the forest(f) is.3SG there is.3SG there
 out they were going in the forest and in the forest there's. [/] There's.

<bees> be' ti 'n galw um@fp sy 'n neud mêl ## ac mae 'na # coed-ydd &he
 -- what you PROG call is.REL PROG make honey and is.3SG there trees-xxx
 <Bees> what you call ym@fp who make honey. And there are, old trees &he

uh@fp hen gyda twll ynddo fe # a maen nhw edrych ar [/] maen nhw 'n um@fp [/] mae
 -- old with hole in-it he and is.3PL they look on is.3PL they PROG is.3SG
 uh@fp with a hole in it, and they are looking at [/] they are um@fp [/] the

'r ci yn edrych yn y <beehive> ond mae e ddim yn gallu gweld dim-byd a
 the dog PROG look in the but is.3SG he NEG PROG able see nothing and
 dog is lookig in the <beehive> but he can't see anything and

mae 'r bachgen yn edrych mewn twll yn y [/] yn y [/] yn y [/] yn y lawr &on mae 'n
 is.3SG the boy PROG look in hole in the in the in the in the \ground(m) is.3SG PROG
 the boy is looking in a hole in the [/] in the [/] in the [/] in the ground &on [he]'s

yn galw dan-o fe a mae [/] a mae 'na # rhyw anifail fach yn dod ## um@fp
 PROG call under-him he and is.3SG and is.3SG there some animal(m) \little PROG come
 calling under it and there's [/] there's, some little animal coming. Um@fp

<it's like a groundhog> # <that's an American that's an American one> ## uh@fp uh@fp xxx

 <it's like a groundhog>, <that's and American that's an American one>. Uh@fp uh@fp xxx

nawr arogl ofnadwy <dw i 'n credu> mae 'r bachgen yn mynd <oh> xxx
 now odor awful is.1SG I PROG believe is.3SG the boy PROG go
 now an awful smell <I think> the boy goes '<oh>' xxx

uh@fp uh@fp arogl a mae 'r # [/] a mae wedi [/] mae e [/] maen nhw xxx
 -- odor and is.3SG the and is.3SG PRF is.3SG he is.3PL they
 uh@fp uh@fp a smell and the, [/] and [he] has [/] he has [/] they are xxx

yma # ac mae 'r uh@fp <beehive> wedi &c [/] wedi ## [/] mae rhywbeth wedi digwydd
 here and is.3SG the PRF PRF is.3SG something PRF happen
 here, and the uh@fp <beehive> has &c [/] has. Something has happened

a mae 'r [/] mae 'r um@fp <beehive> ar y lawr a mae 'na [/] maen nhw 'n
 and is.3SG the is.3SG the on the \ground(m) and is.3SG there is.3PL they PROG
 and the [/] the um@fp <beehive> is on the ground and there's [/] they are

dod mas ## a mae 'r anifail fach yn edrych nawr yma ## ond mae ddim yn # [/]
 come out and is.3SG the animal(m) \little PROG look now here but is.3SG NEG PROG
 coming out. And the little animal is looking now here. But [he] isn't, [/]

mae ddim yn gallu siarad yna ddim-byd a mae 'r bachgen yn &e [/] yn gwylio mewn
 is.3SG NEG PROG able speak there \nothing and is.3SG the boy PROG PROG watch in
 [he] is not able to speak there anything and the boy is &e [/] is looking into

i 'r [/] i 'r &he i 'r hen #[/] mae 'na ## &coe &coe um@fp # gyda <hole> yma gyda 'r
 to the to the to the old is.3SG there with here with the
 the [/] the &he to the old, [/] there's. &coe &coe Um@fp, with a <hole> here with the

um@fp [/] o mae ddim yn y [/] yn y twll yn [/] yn [/] ynddo fe a mae 'r bachgen
 -- he is.3SG NEG in the in the hole in in in-him he and is.3SG the boy
 um@fp [/] him [it] isn't in the [/] in the hole in [/] in [/] in it and the boy

yn edrych # dw i 'n gallu gweld # <I don't know what an owl is> # a mae &ad [/]
 PROG look is.1SG I PROG able see and is.3SG
 is looking, I can't see, <I don't know what an owl is>, and there's &ad

mae 'na aderyn &wed yn byw yno a mae 'r [/] maen [/] mae [/] mae wedi # [/] mae
 is.3SG there bird PROG live there and is.3SG the is.3PL is.3SG is.3SG PRF is.3SG
 [/] there's a bird &wed living there and the [/] they [/] [it] [/] [it] has, [/] [it] has

wedi ofni 'r aderyn a mae 'n [/] mae 'r aderyn yn dod mas # a mae 'r bachgen
 PRF fear the bird and is.3SG PROG is.3SG the bird PROG come out and is.3SG the boy
 feared the bird and [it]'s [/] the bird is coming out, and the boy is,

[/] aeth e wedi &c cwmpo hefyd ar y lawr a mae 'r # ci # yn rhedeg o
 went.3SG he PRF fall also on the \ground(m) and is.3SG the dog PROG run from
 he went having fallen also on the ground and the, dog, is running from

'r um@fp <bees> ## ac mae 'r um@fp [/] mae rhywbeth arall yna rhywbeth tu ôl
 the and is.3SG the is.3SG something other there something side track
 the um@fp <bees>. And the um@fp [/] there's something else there something behind

hwn # um@fp a mae 'r bachgen yn rhedeg nawr uh@fp wel ar [/] ar craig neu carreg
 this and is.3SG the boy PROG run now well on on rock or stone(f)
 this, um@fp and the boy is running now uh@fp well on [/] on a rock or a big stone

fawr gyda 'r aderyn ar ei ôl # a mae 'n galw [/] mae 'r aderyn [/] mae 'n um@fp
 \big with the bird on his track and is.3SG PROG call is.3SG the bird is.3SG PRED
 with the bird behind him, and [he]'s calling [/] the bird [/] [he]'s um@fp

&a # ar y pren yna # um@fp a mae 'r ci [/] ci 'n [/] yn edrych o-dan y carreg yma
on the wood there and is.3SG the dog dog PROG PROG look under the stone(f) here
&a, on the wood there, um@fp the dog [/] dog is [/] is looking under the stone here.

mae 'na anifail <'t's a deer> uh@fp mae wedi # [/] mae 'n cuddio tu 'n ôl a
is.3SG there animal is.3SG PRF is.3SG PROG hide side in track and
There's an animal <it's a deer> uh@fp [he] has, [/] [he]'s hiding behind and

mae wedi sefyll &i i-fyny a mae 'r [/] mae 'r bachgen ar ei ben 'na ## a mae
is.3SG PRF stand up and is.3SG the is.3SG the boy on his \head there and is.3SG
[he] has stood &i up and the [/] the boy is on his head there. And the

'r ci wedi myn' 'n ôl tu xxx # a maen nhw 'n rhedeg nawr a mae 'na um@fp #
the dog PRF go in track side and is.3PL they PROG run now and is.3SG there
dog has gone back xxx side, and they are running now and there's um@fp,

ar lan yr afon neu &ll [/] neu llyn neu rhywbeth neu um@fp dw i ddim yn gwybod
on \shore the river or or lake or something or is.1SG I NEG PROG know
on the river or &ll [/] or lake shore or something or um@fp I don't know

beth yw [/] beth yw e ond mae [/] mae 'r &anim anifail yn rhedeg nawr gyda 'r ci
what COP what COP he but is.3SG is.3SG the animal PROG run now with the dog
what [/] what is it but [/] the &anim animal is running now with the dog

ar y bachgen a 'r bachgen ar ei ben a mae 'n [/] mae ar xx rhy yn cyflym
on the boy and the boy on his \head and is.3SG PROG is.3SG on too ADV quick
on the boy and the boy on his head and and [it]'s [/] [he]'s on too xxx very quickly.

iawn ## a mae 'r bachgen a 'r ci yn [/] yn cwympto mewn credu mae 'n dŵr
very and is.3SG the boy and the dog PROG PROG fall in believe is.3SG PROG water
And the boy and the dog are [/] are falling in think [it]'s water

rhywle # um@fp mae 'n dwfn a mae ## dim # yn bwrw glaw fallai # na ## um@fp
somewhere is.3SG PRED deep and is.3SG NEG PROG throw rain maybe no
somewhere, um@fp [it]'s water and [it]'s. Not, raining maybe, no. Um@fp

um@fp ### ah@fp maen nhw 'n gallu clywed rhybeth yma ## a mae 'n &r
-- is.3PL they PROG able hear something here and is.3SG PROG
um@fp. Ah@fp they can hear something here. And [he]'s &r

[/] mae 'n [/] mae 'n [/] mae 'n # gwranddo xxx mae 'n clywed um@fp # rhyw sŵn
is.3SG PROG is.3SG PROG is.3SG PROG listen is.3SG PROG hear some sound
[/] [he]'s [/] [he]'s [/] [he]'s, listening xxx [he] hears um@fp, some sound

<somewhere> # a mae 'na # hen xxx o pren yna ## a mae 'n dweud wrth y ci
-- and is.3SG there old of wood there and is.3SG PROG say to the dog
<somewhere>, and there's an, old xxx of wood there. And [he] tells the dog

&a i fod yn ddawel # a bod nhw 'n edrych tu 'n ôl [/] dros-to fe a dyna #
to \be.INF PRED \quiet and is.COMP they PROG look side in track over-it he and there's
&a to be quiet, and that they look behind [/] over it and there's,

ar yr ochr arall mae 'na ddau o nhw # um@fp # na mwy na ddau mae 'na teulu
on the side other is.3SG there \two of they no more than \two is.3SG there family(m)
on the other side there's two of them, um@fp, no more than two there's a big family,

fawr # o 'r [//] o ffrogs a maen &nh [/] maen nhw ddim yn byw fel &yn yna yn [/] yn yr
\big of the of frogs and is.3PL is.3PL they NEG PROG live like there in in the
of the [//] of frogs and they &nh [/] they aren't living like &yn there in [/] in the

un byd â ni ac maen nhw # wedi troi <rownd> a mae 'n # gweud <farewell> # <fi
one world as we and is.3PL they PRF turn and is.3SG PROG say I
same world as us and they, have turned <rownd> and they, say <farewell>, <I

'n credu> neu maen nhw 'n &di xxx i 'r um@fp rhywun oh@fp mae un bach yma
PROG believe or is.3PL they PROG to the someone is.3SG one small here
think> or they are &di xxx to the um@fp someone oh@fp there's one small one here

ar ei hun sy ddim yn gallu mynd
on his own is.REL NEG PROG able go
on his own who can't go.

Broga # ble ydych chi ## mae 'r hog[yn] bach wrth y gwely efo ci bach mae 'n
frog where is.2PL.Q you is.3SG the boy little at the bed with dog little is.3SG PRED
Frog, where are you. The little boy is by the bed with a little dog [it]'s

amser gwely a mae broga yn y jar ## mae 'r hog[yn] bach a 'r ci yn mynd i
time bed and is.3SG frog in the jar is.3SG the boy little and the dog PROG go to
bed time and there's a frog in the jar. The little boy and the dog goes to

gwely i gysgu # a pan maen nhw 'n cysgu mae 'r broga yn fynd ## mae 'n
bed to \sleep and when is.3PL they PROG sleep is.3SG the frog PROG \go is.3SG PRED
bed to sleep, and when they are sleeping the frog goes. [It]'s

amser nos ## yn y bore # pan mae 'r bachgen yn # dod o 'r gwely # does
time night in the morning when is.3SG the boy PROG come from the bed is.3SG.NEG
night time. In the morning, when the boy is, coming from bed, there

'na ddim broga i gweld o-gwbl ## maen nhw 'n &ed edrych ym mobman # yn y jar #
there NEG frog to see at-all is.3PL they PROG look in \everywhere in the jar
is not a frog to see at all. They are &ed looking everywhere, in the jar,

trwy 'r dillad # ond does 'na ddim broga i weld ## maen nhw 'n edrych
through the clothes but is.3SG.NEG there NEG frog to \see is.3PL they PROG look
through the clothes, but there's not a frog to see. They are looking

trwy 'r ffenestr # maen nhw 'n galw am y broga # ond does 'na dim-byd yn
through the window is.3PL they PROG call for the frog but is.3SG.NEG there nothing PROG
through the window, they are calling for the frog, but there's nothing

dod yn ôl ## mae ci bach yn cwympo o 'r ffenestr # &a &a ar y llawr ## mae 'r
come in track is.3SG dog little PROG fall from the window on the ground is.3SG the
coming back. A little dog falls from the window, &a &a on the ground. The

jar wedi torri ond mae 'r ci yn iawn ## mae 'r bachgen yn <cuddl>-o ci # yn
jar PRF break but is.3SG the dog PRED okey is.3SG the boy PROG -INF dog in
jar has broken but the dog is okey. The boy <cuddle>s a dog, in a

cwtsh ## maen nhw 'n fynd allan i gweld # ble mae 'r broga ## ond mae gwenyn
hug is.3PL they PROG go out to see where is.3SG the frog but is.3SG bees
hug. They are going out to see, where the frog is. But bees

yn dod ## maen nhw 'n edrych ac yn galw ond does 'na ddim-byd i weld #
PROG come is.3PL they PROG look and PROG call but is.3SG.NEG there \nothing to \see
are coming. They are looking and calling but there's nothing to see,

ond # y gwenyn ## maen nhw 'n byw # yn y coedwig # mewn <hive> ## mae 'r
but the bees is.3PL they PROG live in the forest(f) in is.3SG the
but, the bees. They live, in the forest, in a <hive> the

bachgen bach yn edrych yn y ddaear mae twll yn y ddaear ## mae o 'n edrych i
 boy little PROG look in the \earth(f) is.3SG hole in the \earth(f) is.3SG he PROG look to
 little boy is looking in the ground there's a hole in the ground. He's looking to see if

weld os yd[y]'r broga yn y twll ## mae 'r ci yn <bark>-io # at y gwenwyn # [//]
 \see if is.3SG.Q the frog in the hole is.3SG the dog PROG -INF to the poison
 there's a frog in the hole. The dog is <bark>ing at the poison, [//] bees. The

gwenyn ## mae'r bachgen bach yn symud lan # mae 'na rhywbeth wedi dod allan o
 bees is.3SG the boy little PROG move up is.3SG there something PRF come out from
 little boy moves up there's something come out from

'r twll yn y ddaear ond dydy o ddim y broga ## mae ci # yn chwarae yn y
 the hole in the \earth(f) but is.3SG.NEG he NEG the frog is.3SG dog PROG play in the
 the hole in the ground but it isn't the frog. A dog is playing in the

coedwig ## <oh dear> <fi 'm gwybod> ## mae bachgen bach yn mynd lan y coedwig i
 forest(f) I NEG know is.3SG boy little PROG go up the forest(f) to
 forest. <Oh dear>. A little boy is going up the forest to

weld beth sydd yn y twll ## mae adar yn dod
 \see what is.REL in the hole is.3SG birds PROG come
 see what is in the hole. Birds come

allan o'r twll # a mae 'r bachgen bach yn cwmpo ar y llawr ##
 out of the hole and is.3SG the boy little PROG fall on the floor
 out of the hole and the little boy falls on the ground.

mae 'r ci bach yn rhedeg ffwrdd # a gw[e]nyn ar ei ôl ### mae aderyn yn
 is.3SG the dog little PROG run away and bees on his track is.3SG bird PRED
 The little boy is running away, and bees after him. A bird is

fawr # a mae 'r bachgen bach ddim yn licio adar o-gwbl # ac mae 'n cleimio
 \big and is.3SG the boy little NEG PROG like birds at-all and is.3SG PROG climb
 big, and the little boy doesn't like birds at all, and [he] climbs

fyny o xxx # ac yn galw o-gwmpas # i gweld ble mae 'r ci # a ble mae 'r
 up from and PROG call around to see where is.3SG the dog and where is.3SG the
 up from xxx, and calling around, to see where the dog it, and where the

broga ## mae carw yn dod allan o 'r coedwig ac yn symud y [/] y bachgen bach
 frog is.3SG stag PROG come out from the forest(f) and PROG move the the boy little
 frog is. A stag comes out from the forest and moves the [/] the little boy.

mae o 'n rhedeg i-ffwrdd # a wedyn maen nhw 'n cwmpo dros y <cliff> ##
 is.3SG he PROG run away and then is.3PL they PROG fall over the
 He runs away, and then they fall over the <cliff>.

cwmpo lawr trwy 'r awyr # y ci bach a bachgen bach # a maen nhw cwmpo a
 fall down through the air the dog little and boy little and is.3PL they fall and
 fall down through the air, the little dog and little boy, and they fall and

cwympo lawr # a wedyn maen nhw yn y dŵr efo <splash> ## mae bachgen a ci
 fall down and then is.3PL they in the water with is.3SG boy and dog
 fall down, and then they are in the water with a <splash>. A boy and dog

yn iawn a maen nhw 'n codi fyny i gweld a maen nhw 'n clywed rhywbeth ##
 PRED okay and is.3PL they PROG rise up to see and is.3PL they PROG hear something
 are okay and they rise up to see and they hear something.

beth i [//] be' maen nhw 'n clywed y broga? # <shh> mae bachgen bach yn deud ##
 what to what is.3PL they PROG hear the frog is.3SG boy little PROG say
 What to [//] what do they hear the frog? <shh> a little boy says.

a maen nhw codi fyny # a edrych dros y coedwig # i weld beth sydd 'na # a dyma
 and is.3PL they rise up and look over the forest(f) to \see what is.REL there and here's
 and they rise up, and look over the forest, to see what is there, and here's

broga # efo broga arall ## a pan maen nhw 'n yn edrych # mae 'na lot o broga
 frog with frog other and when is.3PL they PROG PROG look is.3SG there many of frog
 a frog, with another frog. And when they look, there are a lot of little frog[s],

bach # un dau tri pedwar pump chwech saith wyth broga bach ## mae 'r bachgen yn
 little one two three four five six seven eight frog little is.3SG the boy PRED
 one two three four five six seven eighth little frogs. The boy is

hapus i weld bod y broga yn hapus hefyd # ac maen nhw 'n mynd adre a
 happy to \see is.COMP the frog PRED happy also and is.3PL they PROG go homeward and
 happy to see that the frog is happy also, and they go home and

gadael y teulu broga yn ôl # mae 'na un broga wedi cwympo o 'r coed
 leave the family frog in track is.3SG there one frog PRF fall from the trees
 leave the frog family back, there's one frog fallen from the trees.

Appendix II.2 Transcriptions of the Baseline Welsh Speaker Narratives

CA1

time - 2:44

un noswaith xxx # uh@fp naeth y bachgen um@fp rhoi llyffant mewn jar # uh@fp ## a
one evening did.3SG the boy put frog in jar and
One eveing xxx, uh@fp the boy put a frog in a jar, uh@fp and

um@fp aeth i gygsgu ## yn ystod y nos oedd y llyffant mynd allan o 'r
-- went.3SG to \sleep in duration the night was.3SG the frog go out from the
um@fp [he] went to sleep. During the night the frog was going out of the

jar a uh@fp dianc uh@fp drwy 'r ffenest oedd yn agored # uh@fp # a pan
jar and escape through the window was.3SG PRED open and when
jar and uh@fp escaping uh@fp through the window [that] was open. Uh@fp and when

roedd y bachgen ddi[hi]no lan a sylweddoli bod dim-byd yn y jar # uh@fp
was.3SG the boy \wake up and realize is.COMP nothing in the jar
the boy was waking up and realizing that there was nothing in the jar, uh@fp

naeth e edrych drwy ei stafell yn ei ddillad # um@fp allan drwy 'r ffenest #
did.3SG he look through his room in his \clothes out through the window
he looked through his room, in his clothes, um@fp out through the window,

wrth i-ddo agor y ffenest naeth y ci cwmpo allan ah@fp uh@fp naeth y jar #
at to-him open the window did.3SG the dog jump out did.3SG the jar
as he opened the window the dog jumped out. Ah@fp uh@fp the jar,

[/] oedd ar y ci yn xxx um@fp dorri ar y [/] # ar y llawr # um@fp aeth y
was.3SG on the dog PROG \break on the on the ground went.3SG the
[it] was on the dog xxx, break on the [/] on the ground. Um@fp the boy went

bachgen allan i edrych am y llyffant a galw a galw # naeth e alw mewn twll a wrth
boy out to look for the frog and call and call did.3SG he \call in hole and at
out to look for the frog and calls and calls. He called in a hole and as

i xxx allan roedd y ci yn cyfarth um@fp ## ar y <beesnest> <t'beth yw hwnna> #
to out was.3SG the dog PROG bark on the whatever COP that
xxx out the dog was barking um@fp at the <beesnest> <whatever that is>,

um@fp fe wnaeth y bachgen um@fp um@fp mynd lan y coeden ## uh@fp ag wrth iddo
-- AFF did.3SG the boy go up the tree(f) and at to-him
um@fp the boy went up the tree. Uh@fp and as he

gwmpo naeth y gwenyn mynd ar ôl y ci ah@fp ## oedd y bachgen yw
\fall did.3SG the bees go on track the dog was.3SG the boy COP
falls, the bees went after the dog. Ah@fp the boy was

lwci uh@fp roedd e 'n dychryn xxx um@fp roedd y tylluan uh@fp o-amgylch ## ac
 lucky was.3SG he PROG frighten was.3SG the owl(f) around and
 lucky uh@fp it was frightening xxx the owl was uh@fp around. And

wrth i-ddo fynd lan uh@fp um@fp <rocks> <t'beth yw 'wnna> ## reit # <deer> naeth e
 at to-him \go up whatever COP that right did.3SG he
 as he went up uh@fp um@fp some <rocks> <whatever that is>. Right, a <deer> he

gwympo uh@fp mewn i goedwig # a mewn i lyn ah@fp ## uh@fp naeth y ci uh@fp
 \fall in to \forest(f) and in to \lake did.3SG the dog
 fell uh@fp into a forest, and into a lake. Ah@fp uh@fp the dog uh@fp

mynd ar ei ben # um@fp naeth e glywyd rywbeth mewn bonyn coeden # a naeth
 go on his \head did.3SG he \hear \something in trunk tree and did.3SG
 went on top of him, um@fp he heard something in a tree trunk, and

e edrych tu ôl i 'r bonyn # a dyna roedd y llyffant uh@fp a lyffant-od bach
 he look side track to the trunk and there's was.3SG the frog and \frog-s little
 he looked behind the trunk, and there was the frog uh@fp and little frogs

hefyd # <ah@fp reit llyffant 'dden i 'n gweud> um@fp fe aeth y bachgen
 also right frog is.1SG.COND I PROG say AFF went.3SG the boy
 also, <ah@fp right frog I'd say>. Um@fp the boy went

'n ôl gyda un o 'r lyffant bach a gweud hwyl fawr wrth y teulu o llyffantod
 in track with one of the \frog little and say bye(f) \big to the frog of frogs
 back with one of the little frog and says goodbye to the family of frogs

[/] llyffantod # grêt
 frogs great
 [/] frogs, great.

un bore mae 'na hogyn bach yn codi o 'i wely ac yn mynd i eiste[dd] ar
 one morning is.3SG there boy little PROG rise from his \bed and PROG go to sit on
 One morning there was a little boy xxx bed and goes to sit on a stool. Um@fp

stôl um@fp mae siarad gyda 'i gi anwes ac maen nhw 'n edrych ar llyffant sy
 stool is.3SG speak with his \dog pet and is.3PL they PROG look on frog is.REL
 [he] speaks with his pet dog and they look at a frog that they have

gyn-nyn nhw mewn jar ## a dyna pan mae 'r hogyn bach yn mynd yn ôl i wely
 with-them they in jar and there's when is.3SG the boy little PROG go in track to \bed
 in a jar. And there when the little boy goes back to bed and

ac yn mynd 'n ôl i gysgu # a mae 'r uh@fp y ci anwes yn cysgu ar ben ei
 and PROG go in track to \sleep and is.3SG the the dog pet PROG sleep on \head hi
 goes back to sleep, and the uh@fp pet dog sleeps on top of his bed,

wely dyn ni 'n xxx y llyffant yn dechrau codi wrth mewn jar # un coes xxx bach #
 \bed is.1PL we PROG the frog PROG begin raise at in jar one leg little
 we xxx the frog beginning to raise [from] in the jar, one little leg xxx. When

um@fp pan mae 'r hogyn bach yn deffro yn y bore mae 'n sylweddoli bod
 when is.3SG the boy little PROG wake in the morning is.3SG PROG realize is.COMP
 the little boy wakes in the morning, [he] realizes that the frog

y llyffant wedi mynd a mae o 'n synnu xxx gwybod sut mae o wedi mynd mae
 the frog PRF go and is.3SG he PROG wonder know how is.3SG he PRF go is.3SG
 has gone. And he wonders xxx knows how he has gone. He

e chwilio ym bobman yn yr ystafell um@fp dydy e ddim yn ei sgidiau #
 he look ADV \everywhere in the room is.3SG.NEG he NEG in his shoes
 looks everywhere in the room. Um@fp he isn't in his shoes,

dydy o ddim tu allan i 'r ffenest # a galw ar ei ôl yn methu ffeindio fo #
 is.3SG.NEG he NEG side out to the window and call on his track PROG fail find he
 he isn't outside the window. And calling after him failing to find him.

ac mae 'r ci wrth i-ddo geisio ddod-o-hyd-i 'r llyffant yn syrthio o allan o 'r
 and is.3SG the dog at to-him \try \find the frog PROG fall from out from the
 And the dog as he's trying to find the frog falls out of the

ffenest # gyda 'r hogyn bach yn galw mynd ar ei ôl o i xxx allan o 'r gwydr ##
 window with the boy little PROG call go on his track he to out from the glass
 window, with the little boy calling to go after him to xxx out of the glass.

um@fp mae 'r hogyn a 'r ci yn parhau i fynd drwy 'r goedwig ac yn
 -- is.3SG the boy and the dog PROG continue to \go through the \forest(f) and PROG
 Um@fp the boy and the dog continue to go through the forest and

gweiddi ar ôl y llyffant ## um@fp maen nhw 'n edrych o fewn tyllad yn y gwair
 shout on track the frog is.3PL they PROG look from \in hole in the grass
 to shout after the frog. Um@fp they look inside a hole in the grass

ac yn gweiddi uwch-ben yr coed ## um@fp a mae 'r hogyn bach wrth i-ddo fo
 and PROG shout above the trees and is.3SG the boy little at to-him he
 and shout above the trees. Um@fp and the little boy as he's

edrych i mewn i twll yn y [/] yn y pren mae 'na uh@fp llygoden <dw i 'n meddwl>
 look to in to hole in the in the wood is.3SG there mouse is.1SG I PROG think
 looking inside a hole in the [/] in the wood uh@fp a mouse <I think> comes out

yn dod allan ac yn ei ddychryn um@fp ## a mae 'r ci yn creu fwya helynt
 PROG come out and PROG his \frighten and is.3SG the dog PROG create \most trouble
 and frightens him. Um@fp and the dog creates most trouble

yn gollwng yr um@fp # <gosh> <<my dear> yw hwnna> um@fp # <what's that in English>
 PROG release the COP that
 dropping the um@fp <gosh>, <<my dear> is that> um@fp <what's that in English?>

<is that a hive?> yn gollwng uh@fp # rhywbeth ar y llawr ac mae 'r uh@fp gwenwyn
 -- PROG drop something on the ground and is.3SG the poison
 <is that a hive?> dropping uh@fp, something on the ground and the uh@fp all the poison

i-gyd yn dod ar ei ôl o tra bod yr hogyn bach yn edrych i fewn i 'r goeden
 all PROG come on his track he while is.COMP the boy little PROG look to \in to the \tree
 comes after him, while the little boy is looking inside the tree.

wrth i 'r gwenyn i-gyd fynd ar ôl y ci mae 'r hogyn yn syrthio allan o 'r [/]
 as to the bees all \go on track the dog is.3SG the boy PROG fall out from the
 As all the bees go after the dog, the boy falls out of the [/]

o 'r goeden gyda tylluan yn gweiddi ar ei ôl o ac mae e 'n ddechrau rhedeg
 from the \tree with owl PROG shout on his track he and is.3SG he PROG \begin run
 of the tree with an owl shouting after him and he starts to run away

i-ffwrdd gyda tylluan yn dal i fynd ar ôl yr hogyn bach xxx gweld be' mae o
 away with owl PROG continue to \go on track the boy little see what is.3SG he
 with an owl still going after the little boy xxx to see what he's

'n neud yr hogyn yn parhau i weiddi ar ôl y llyffant # ac yn dod ar-draws
 PROG do the boy PROG continue to \shout on track the frog and PROG come across
 doing the boy continuing to shout after the frog, and coming across

carw # a mae 'r carw yn pigo 'r hogyn bach i-fyny ac yn dechrau rhedeg gyda 'r
 stag and is.3SG the stag PROG pick the boy little up and PROG begin run with the
 a stag, and the stag picks the little boy up and begins to run with the

ci bach yn rhedeg ar eu hôl nhw # a 'r carw yn gollwng y bachgen a 'r ci
 dog little PROG run on their \track they and the stag PROG release the boy and the dog
 little dog running after them. And the stag drops the boy and the dog

oddi-wrth yr um@fp <a cliff> ac maen nhw syrthio i fewn i 'r dŵr # gyda <splash> mawr
 from the and is.3PL they fall to \in to the water with big
 from the um@fp <a cliff> and they fall into the water with a big <splash>. Uh@fp

uh@fp yr hogyn a 'r ci yn dringo allan o 'r dŵr a dringo dros boncyffac
 the boy and the dog PROG climb out from the water and climb over trunk and
 the boy and the dog climb out of the water and climb over a trunk and

yn ffeindio o 'r diwedd dau lyffant a babi llyffant-od ## maen nhw 'n deud
 PROG find from the end two \frog and babi frog-s is.3PL they PROG say
 find, at last, two frogs and baby frogs. They say

<ta ta> i 'r llyffantod ac yn dechrau mynd yn ôl adre gyda llyffant bach nhw yn
 to the frogs and PROG begin go in track homeward with frog little they in
 <ta ta> to the frogs and start to go back home with their little frog in

law fo
 \hand he
 his hand.

mae plentyn a ci yn edrych mewn i at broga sydd yn uh@fp jar llun nesa
 is.3SG child and dog PROG look in to to frog is.REL in jar picture next
 A child and dog are looking in at a frog that is in uh@fp a jar next picture

mae plentyn yn cysgu gyda ci mae 'r broga yn dod mas o 'r jar um@fp
 is.3SG child PROG sleep with dog is.3SG the frog PROG come out from the jar
 a child sleeps with a dog, the frog comes out of the jar um@fp

llun nesa mae ci a 'r plentyn yn edrych am y broga sy 'r-goll # llun
 picture next is.3SG dog and the child PROG look for the frog is.REL lost picture
 next picture a dog and the child are looking for the frog who is lost,

nesa mae plentyn yn trio gwisgo gyda 'r ci xxx ei ben e yn y jar a mae
 next is.3SG child PROG try wear with the dog his \head he in the jar and is.3SG
 next picture a child is trying to dress with the dog xxx his head in the jar and

uh@fp xxx pen i waered llun nesa mae 'r ci 'da 'i ben yn y jar a mae 'r
 -- head to \bottom picture next is.3SG the dog with his \head in the jar and is.3SG the
 uh@fp xxx upside down next picture the dog with his head in the jar and the

plentyn 'di agor y ffenest # llun nesa mae 'r plentyn yn edrych mas drwy 'r
 child PRF open the window picture next is.3SG the child PROG look out through the
 child has opened the window, next picture the child looks out through the

ffenest gyda ci gyda 'i ben yn y jar yn <jump>-o lan llun nesa # mae 'r plentyn
 window with dog with his \head in the jar PROG -INF up picture next is.3SG the child
 window with a dog with his head in the jar <jump>ing out next picture, the child

yn dal y ci a mae 'r ci yn llyfu gwyneb y plentyn wrth i ddim yn edrych
 PROG hold the dog and is.3SG the dog PROG lick face the child at to NEG PROG look
 holds the dog and the dog is licking the child's face as [he] does not look

hapus iawn uh@fp llun nesa mae plentyn yn xxx yn gweiddi mas at y goedwig gyda
 happy very picture next is.3SG child PROG PROG shout out to the \forest(f) with
 very happy uh@fp next picture a child xxx shouts out to the forest with

ci a gyda 'i drwyn lan mae 'r ci yn &gw yn y llun nesa mae 'r ci yn
 dog and with his \nose up is.3SG the dog PROG in the picture next is.3SG the dog PROG
 a dog and with his nose up. The dog &gw in the next picture the dog

gweld um@fp picwn-od yn # <hive> <beth-bynnag yw 'na> um@fp a mae 'r plentyn yn
 see wasps-PL in whatever COP that and is.3SG the child PROG
 sees um@fp wasps in a <hive>, <whatever that is>, and the child

edrych mewn twll llun nesa mae 'r plentyn yn [/] 'di cael braw mae xxx bod #
 look in hole picture next is.3SG the child PROG PRF get scare is.3SG is.COMP
 is looking in a hole next picture the child gets [/] has got a scare, [he] xxx that,

anifail 'di dod mas o 'r twll gyda ci dal yn trio um@fp # cael # picwn-od #
 animal PRF come out from the hole with dog continue PROG try get wasps-s
 an animal has come out of the hole with a dog still trying um@fp, to get, wasps,

llun nesa mae plentyn 'di mynd lan coeden ac yn edrych mewn i twll a mae 'r
 picture next is.3SG child PRF go up tree and PROG look in to hole and is.3SG the
 next picture a child has gone up a tree and is looking in a hole and the

ci yn mynd i gael ei bigo gan y picyn-od llun nesa mae 'r # [/] mae 'r plentyn
 dog PROG go to \get his \sting by wasps-s picture next is.3SG the is.3SG the child
 dog is going to get stung by the wasps next picture the, [/] the child

'di cwympo mas o 'r goeden # gyda um@fp # <owl> lle [/] lle &anwe ##
 PRF fall out from the \tree(f) with where where
 has fallen out of the tree, with uh@fp, an <owl> where [/] where &anwe.

yn dod mas o 'r goeden a 'r ci yn mynd bant o picwn-od mae # uh@fp
 PROG come out from the \tree(f) and the dog PROG go away from wasps-PL is.3SG
 coming out of the tree and the dog going away from wasps, a uh@fp

plentyn yn y goedwig # mae 'r plentyn ar ben # carreg mawr yn y goedwig # mae 'r
 child in the \forest(f) is.3SG the child on \head stone(f) big in the \forest(f) is.3SG the
 child is in the forest, the child is on top of, a big stone in the forest, the

plentyn ar ben carw ryw-fath yn y goedwig # a carw cario bant y blentyn mae 'r
 child on \head stag \some-\sort in the \forest(f) and stag carry away the \child(m) is.3SG the
 child is on top of a stag of some sort in the forest, and a stag carrying the child off, and

carw twlu 'r plentyn a ci lawr [/] # lawr ochr y dibyn mewn i # rywfath o llyn
 stag throw the child and dog down down side the precipice in to \some-\sort of lake
 the stag throws the child and dog down, [/] down the side of the precipice into, some sort of lake

o rhyw-fath neu afon # a mae 'r plentyn a ci yn y llyn neu afon # mae 'r plentyn
 of some-\sort or river and is.3SG the child and dog in the lake or river is.3SG the child
 of some sort or river, and the child and dog are in the lake or river, the child

yn eiste yn y llyn # mae 'r plentyn lawr 'di mynd i weld coeden mae 'r coeden
 PROG sit in the lake is.3SG the child down PRF go to \see tree is.3SG the tree(f)
 is sitting in the lake, the child is down gone to see a tree, the tree

gyda uh@fp [/] mae 'r plentyn a tu ôl y coeden a mae 'r ci 'n xxx coeden
 with is.3SG the child and side track the tree(f) and is.3SG the dog PROG tree
 with uh@fp [/] the child and behind the tree and the dog is xxx a tree

mae 'r plentyn a ci yn ffeindio dau froga un wedi colli siwr-o-fod a llall o
 is.3SG the child and dog PROG find two \frogs one PRF lose probably and other from
 the child and dog find two frogs, one lost probably, the other from the look of it xxx, the child

edrych xxx mae 'r plentyn yn crwydro dros y goeden gyda 'r ci mae um@fp plentyn
look is.3SG the child PROG roam over the \tree(f) with the dog is.3SG child
wanders over the tree with a dog, a child um@fp

cario 'n ôl trwy 'r afon yn gweud <ta ta> i uh@fp brogaod gyda nifer o broga bach
carry in track through the river PROG say to frogs with number of frog little
carries [him] back through the river and says <ta ta> to uh@fp frogs with a number of little frogs

y diwedd
the end
the end.

un noswaith oedd <Johnny> bach yn ei stafell gwely fe gyda ci <Fido> # gyda um@fp mewn
 one evening was.3SG little in hi room(f) bed he with dog with in
 One evening, little <Johnny> was in his bedroom with <Fido> the dog, with um@fp in.

gwydr xxx gwydr # oedd 'na uh@fp broga bach ## felly ## aeth <Johnny> bach
 -- glass glass was.3SG there frog little so went.3SG little
 Glass a glass xxx, there was uh@fp a little frog. So. Little <Johnny> went

i 'r gwely â <Fido> tra bod nhw 'n cysgu # naeth y broga dechrau # um@fp
 to the bed with while is.COMP they PROG sleep did.3SG the frog begin
 to bed with <Fido> while they were sleeping, the frog began, um@fp

dianc # o 'r potel gwydr ## pryd bore roly bore trannoeth dihun-odd <Johnny>
 escape from the bottle(f) glass when morning xxx morning next-day woke-3SG
 to escape, from the glass bottle. The next morning <Johnny> and <Fido> woke up

a <Fido> a oedd y broga wedi dianc ## neidi-odd <Johnny> allan o 'r gwely #
 and and was.3SG the frog PRF escape jumped-3SG out from the bed
 and the frog had escaped. <Johnny> jumped out of the bed,

edrych dan ei sgidiau fe # a dim sôn am y broga tra fod y ci bach
 look under his shoes he and NEG mention about the frog while \is.COMP the dog little
 looking under his shoes, and no sign of the frog while the little dog

<Fido> wedi cael ei ben e yn <stuck> yn y botel gwydr # edrych-on nhw bobman #
 -- PRF get his \head he PRED in the \bottle(f) glass looked-3PL they \everywhere
 <Fido> had got his head <stuck> in the glass bottle, they looked everywhere,

ac yn galw # broga broga # lle wyt ti ## agor-on nhw ffenest disgwyl mas
 and PROG call frog frog where is.2SG you opened-3PL they window look out
 and calling, 'frog frog, where are you?'. They opened a window looking out

trwy 'r ffenest ond dim sôn ## tra fod disgwyl mas o 'r ffenest
 through the window but NEG mention while \is.COMP look out from the window
 through the window but no sign. While looking out of the window

cwmpodd y ci ## lawr â fe gyda gwydr yn dyllu ar y llawr a <Johnny> bach
 fell-3SG the dog down with he with glass PROG \burst on the ground and little
 the dog fell. Down with him with glass bursting on the ground and little <Johnny>

yn codi <Fido> lan a ci yn llyod e ar ei foch ## mas rhwng y ci e a
 PROG raise up and dog PROG lick he on his \cheek out between the dog he and
 raising <Fido> up and a dog licking him on his cheek. Out between his dog and

coedwig maen nhw 'n galw broga broga lle wyt ti lle wyt ti ond doedd
 forest is.3PL they PROG call frog frog where are you where are you but was.3SG.NEG
 a forest they call 'frog frog where are you? where are you?' but there was no

dim sôn am y broga # tra fod nhw 'n cerdded trwy 'r goedwig # ah@fp
 NEG mention about the frog while \is.COMP they PROG walk through the \forest(f)
 sign of the frog, while they walk through the forest, ah@fp

oedd <Johnny>'n edrych lawr twll yn y ddaear # edrychodd <Fido> lan # i 'r # [/] lan
 was.3SG PROG look down hole in the \earth(f) looked.3SG up to the up
 <Johnny> was looking down a hole in the ground, <Fido looked up, to the, [/] up

ar ben y golffen lle oedd 'na um@fp cacyne[n] gyda um@fp nyth cacwns # um@fp tra
 on \head the \tree(f) where was.3SG there wasp with nest wasps-PL while
 on top of the tree where there was um@fp a wasp with um@fp a wasp-nest, um@fp while,

[/] tra fod <Fido> yn edrych lan i 'r nyth cacwn daeth 'na lydogen allan o 'r
 while \is.COMP PROG look up to the nest wasp came.3SG there \mouse out of the
 while <Fido> looks up to the wasp-nest there came a mouse out of the

ddaear a cnoi <Johnny> ar ei trwyn e <oww> <oww> dwed-odd <Johnny> ## tra bod
 \earth(f) and bite on his nose he said-3SG while is.COMP
 ground, and biting <Johnny> on his nose 'oww> <oww>' <Johnny> said. While

[/] tynnodd <Fido> y nyth cacwn lawr i 'r llawr # a tra bod uh@fp y llygodyn bach
 -- pulled-3SG the nest wasps down to the ground and while is.COMP the mouse(f) little
 [/] <Fido> pulled the wasp-nest down to the ground, and while uh@fp the little mouse

yn edrych ymlaen &de dechreu-odd <Johnny> dringo i-fyny 'r golffen a eistedd ar un
 PROG look on began-3SG climb up the \tree(f) and sit on one
 looks on <Johnny> &de began to climb the tree and sit on one

o 'r canghennau ## tra bod e 'n &ed eistedd ar y cangen a disgwyl mewn twll
 of the branches while is.COMP he PROG sit on the branch(f) and look in hole
 of the branches. While he's &is sitting on the branch and looking in a hole

yn y goeden daeth gwdihw allan ## a tra fod <Johnny> yn cwmpo oddi-ar
 in the \tree(f) came.3SG owl out and while is.COMP PROG fall from
 in the tree an owl came out. And while <Johnny> falls from

y goeden dechreuodd y cacyne[n] cwrso <Fido> # trwy 'r goedwig ## <bzzzz> ##
 the \tree(f) began-3SG the wasp chase through the \forest(f)
 the tree, the wasp began to chase <Fido> through the forest. <Bzzz>.

um@fp # <beth sy 'n digwydd fan hyn?> # um@fp hedfann-odd y &gwdi gwdihw
 -- what is.REL PROG happen plane this flew-3SG the owl
 Um@fp, <what's happening here?>, um@fp the &gwdi owl flew

lan i 'r awyr ymosod ymosod lawr 'na <Johnny> gyda<Johnny> yn xxx cer
 up to the air attack attack down there with PROG go.IMP
 up to the air, attacking, attacking down there <Johnny>, with <Johnny> xxx

o 'ma cer o 'ma ## uh@fp <so> ## <ok> aeth y gwdihw 'n ôl lan i 'r
 from here go.IMP from here went.3SG the owl in track up to the
 'go away go away'. Uh@fp <so>. <ok> the owl went back up to the

golfen a dring-odd <Johnny> ar ben y gerrig fawr a galw broga broga lle wyt
 \tree(f) and climbed-3SG on \head the \stones \big and call frog frog where is.2SG
 tree and <Johnny> climbed on top of the big stone and calling 'frog frog where are

ti lle wyt ti ## tra fod <Johnny> ar ben y carreg fawr # daeth carw mas o
 you where is.2SG you while \is.COMP on \head the stone(f) \big came.3SG stag out from
 you where are you'. While <Johnny> is on top of the big stone, a stag came out of

'r unman # ac ar ei ben e # <whoosh> # naeth e <ha ha> dodi [/] dodi <Johnny> bach ar
 the nowhere and on his \head he did.3SG he put put little on
 nowhere, and on top of him, <whoosh>, he <ha ha> put little <Johnny> on his

ei ben a rhedeg o [/] rhedeg oddi-ar y lle # gyda <Fido>'n cwrsio 'n ôl y carw
 his \head and run from run from the place with PROG course in track the stag
 head and runs from the place, with <Fido> coursing after the stag, [he] tossed the two of them,

tafl-odd y ddau o nhw # oddi-ar ochr y [/] ## ochr y <cliff> [/] ochr y hm@fp [/] ochr y
 tossed-3SG the \two(m) of they from side the side the side the side the
 from the side of the [/]. the side of the <cliff> [/] the side of the hm@fp [/] side of the [/] side of

[/] ochr y <ha> oddi-ar y pen # a lawr a lawr cwmp-on nhw mewn i 'r [/] mewn i 'r
 side the from the head and down and down fell-3PL they in to the in to the
 the<ha> from the top, and down and down they fell into the [/] into the

afon ## lwcus oedd yr afon dim yn [/] dim y dŵr yn dwfn iawn <so> codon nhw
 river lucky was.3SG the river NEG PRED NEG the water PRED deep very rose.3PL they
 river. Lucky the water was not [/] the water wasn't very deep <so> they rose

lan ## a cerdded mas a dringo ar ben hen golfen sy wedi cwmpo ## tra bod
 up and walk out and climb on \head old \tree(f) is.REL PRF fall while is.COMP
 up. And walking out and climbing on top of an old tree that had fallen. While

nhw ar ben [/] yn eistedd ar y golfen bach gwelon nhw dau froga na teulu o brogaod
 they on \head PROG sit on the \tree(f) little saw-3PL they two \frog no family of frogs
 they are on top, sitting on the little tree they saw two frogs no a family of frogs.

<so> oedd eu broga bach nhw wedi dianc o 'r teulu a uh@fp ymuno gyda teulu
 was.3SG their frog little they PRF escape from the family and join with family
 <So> their little frog had escaped from the family and uh@fp joined a little family

bach yn [/] yn yr afon oh@fp na <Johnny> bach ffeindio un xxx a mynd â fe 'n ôl
 little in in the river there little find one and go with he in track
 in [/] in the river oh@fp there little <Johnny> finds one xxx and takes him back

gartre ac naeth-on i-gyd fyw yn hapus iawn xxx
 \home and did-3PL all \live ADV happy very
 home and everyone lived very happily xxx.

dyma <Ifan> yn # barod i mynd i 'u wely ac mae gyda fe um@fp dau <pet> uh@fp
 here's PRED \ready to go to his \bed and is.3SG with him two
 Here's <Ifan>, ready to go to bed, and he has um@fp two <pets> uh@fp

un yw <Pero> y ci a broga o 'r enw <Twm> ## um@fp mae <Ifan> yn mynd i 'r
 one COP the dog and frog of the name is.3SG PROG go to the
 one is <Pero> the dog and a frog by the name of <Twm>. Um@fp <ifan> goes to

gwely yn eitha cynnar mae o 'n mynd i gwely ar saith o-'r-gloch y nos mae
 bed ADV quite early is.3SG he PROG go to bed on seven o'clock the night is.3SG
 bed quite early he goes to bed at seven o'clock at night

<Pero> yn cysgu ar y gwely a mae <Twm> yn cysgu yn ei [/] yn ei botel lle mae
 PROG sleep on the bed and is.3SG PROG sleep n his in his bottle where is.3SG
 <Pero> is sleeping on the bed and <Twm> is sleeping in his [/] in his bottle where

uh@fp e 'n cysgu pob nos ## um@fp noson naeth um@fp <Ifan> dihunodd yn ddisymwth
 he PROG sleep each night night did.3SG woke-3SG ADV sudden
 he sleeps every night. Um@fp night um@fp <Ifan> woke up suddenly

a <Pero> ac edrych ar ochr y gwely a oedd y [/] y broga wedi mynd ## naeth <Ifan>
 and and look on side the bed and was.3SG the the frog PRF go did.3SG
 and <Pero> and looking on the side of the bed and the frog had gone. <Ifan> [went] into

mewn i banig mawr # dechrau chwilio 'm bobman mewn [/] yn ei [/] yn ei esgidiau #
 in to \panic big begin look in\ everywhere in in his in his shoes
 a big panic, beginning to look everywhere in [/] in his [/] in his shoes,

ac mae <Pero> ci yn helpu fe hefyd i edrych o-gwmpas am y [/] am y broga ## <beth
 and is.3SG ci PROG help he also to look around for the for the frog what
 and dog <Pero> helps too to look around for the [/] for the frog. <What

oedd yr enw broga?> <'s dim ots> um@fp naeth uh@fp <Ifan> agor y ffenest #
 was.3SG the name frog is.3SG.NEG NEG difference did.3SG open the window
 was the name of the frog?> <doesn't matter> um@fp uh@fp <Ifan> opened the window,

a gweiddi a <Pero> hefyd a <Pero> wedi cael ei ben yn [/] yn llond yn y [/] yn y [/] yn
 and shout and also and PRF get his \head PRED PRED full in the in the in
 and shouting and <Pero> too and <Pero> got his head full in the [/] in the [/] in

y botel ## ar ôl gweiddi am tipyn # naeth <Pero> yn um@fp cwympo allan o 'r silff y
 the \bottle(f) on track shout for bit did.3SG PROG fall out from the sill the
 the bottle. After shouting for a bit, <Pero> fell out of the window sill

ffenest a cwmp-odd e llawr # mae <Ifan> wedi <jump>-io allan ar ei ôl e # a
 window and fell-3SG he down is.3SG PRF -INF out on his track he and
 and fell down, <Ifan> has jumped after him, and

mae [/] mae <Pero> [/] mae uh@fp gwydr wedi torri yn dyllion a mae <Pero> yn <alright>
 is.3SG is.3SG is.3SG glass PRF break in \pieces and is.3SG PRED
 [/] <Pero> [/] uh@fp glass has broken in pieces and <Pero> is okay

nawr mae fe 'n # um@fp lapio wyneb <Ifan> # um@fp ffwrdd â nhw mas i 'r [/] lawr i
 now is.3SG he PROG lick face away with they out to the down to
 now he's, um@fp licking <Ifan>'s face, um@fp off with them out to the [/] down to

'r goedwig # ac mae o 'n gweiddi eto i weld os gallu te ffeindio 'r broga ## ac
 the \forest(f) and is.3SG he PROG shout again to \see if able then find the frog and
 the forest, and he shouts again to see if he can find the frog. And

yn chwilio gwmpas am sbel gweiddi a dim sôn am [/] am y broga # mae
 PROG search around for spell shout and NEG mention about about the frog is.3SG
 looking around for a bit shouting and no sign of [/] of the frog,

<Ifan> wedyn yn ffeindio twll bach yn y [/] yn y llawr # a dechrau gweiddi lawr
 -- then PROG find hole little in the in the ground and begin shout down
 <Ifan> then finds a little hole in the [/] in the ground, and beginning to shout down

y twll # a mae e 'n cael ofn ofnadw mae &gwydd um@fp ## <mole> yn dod
 the hole and is.3SG he PROG get fear awful is.3SG PROG come
 the hole, and he gets an awful fright a &gwydd um@fp. A <mole> comes

allan o 'r twll tra bod <Ifan> uh@fp dim <Ifan> <Pero> y ci yn cyfarth ar
 out from the hole while is.COMP NEG the dog PROG bark on
 out of the hole while <Ifan> uh@fp not <Ifan> <Pero> the dog barks

ôl uh@fp gwenwyn uh@fp yn y coeden ## um@fp # mae <Pero> 'di xxx yn disgwyl y
 track poison in the tree(f) is.3SG PRF PROG look the
 after uh@fp poison uh@fp in the tree. Um@fp, <Pero> has xxx watching the

coeden a mae 'r gwenwyn i-gyd yn dod allan o 'r um@fp # <<can't think> beth
 tree(f) and is.3SG the poison all PROG come out from the what
 tree and all the poison come out from the um@fp, <<can't think> what

yw 'na> ac yn y cyfamser # mae <Ifan> wedi mynd uh@fp fyny 'r goeden # i weld os gallu
 COP that and in the meantime is.3SG PRF go up the \tree(f) to \see if able
 that is> and at the time, <Ifan> has gone uh@fp to the tree to see if he can

fe [/] os 'dy 'r [/] os 'dy 'r broga wedi mynd fyny a mae tylluan yn # dod allan
 he if is.3SG.Q the if is.3SG.Q the frog PRF go up and is.3SG owl PROG come out
 [/] if the [/] is the frog has gone up and an owl, comes out

o 'r goeden a roi ofn i pawb pawb xxx o lle i-gyd ## um@fp mae <Ifan>
 from the \tree(f) and \give fear to everyone everyone from place all is.3SG
 of the tree and gives everyone everyone a fright xxx from everywhere. Um@fp <Ifan>

wedi cael ofn # uh@fp ofnadw o 'r tylluan # ac yn rhedeg i-ffwrdd # gyda <Pero> ##
 PRF get fear terrible from the owl and PROG run away with
 has gotten a, big uh@fp fright from the owl, and runs away, with <Pero>.

um@fp ## yn ddisymwth iawn # naeth <Ifan> mynd ar ben clogwyn bach 'ma eto yn
 -- ADV \sudden very did.3SG go on \head cliff little here still PROG
 Um@fp. Very suddenly, <Ifan> went on top of a little cliff here still

gweiddi am y broga # a pwyso ar beth oedd e yn feddwl oedd yn um@fp [/]
 shout for the frog and lean on what was.3SG he PROG \think was.3SG PRED
 shouting for the frog, and leaning on what he was thinking was um@fp um@fp

yn brigyn coeden # ond beth oedd e oedd carw ## mae # carw codi 'i ben ac
 PRED branch tree but what was.3SG he was.3SG stag is.3SG stag raise his \head and
 [/] a tree branch, but what it was was a stag. A, stag raises his head and

mae <Ifan> yn dal yn sownd i 'r carw a mae 'r carw yn rhedeg i-ffwrdd xxx
 is.3SG PROG continue PRED stuck to the stag and is.3SG the stag PROG run away
 <Ifan> is still stuck to the stag and the stag runs away xxx

ei ben ## mae carw wedi gwylltu fan hyn # nes bod e 'n rhedeg i 'r ochr ac
 his \head is.3SG stag PRF go.wild place this until is.COMP he PROG run to the side and
 his head. A stag is xxx here, until he runs to the side and

yn stopio yn ddisymwth reit a <Pero> a <Ifan> yn cael eu taflu dros ei pen lawr i
 PROG stop ADV \sudden right and and PROG get their toss over his head down to
 stops right suddenly and <Pero> and <Ifan> get tossed over his head down to

ganol y dŵr # i 'r um@fp afon y <Tannon> ## um@fp # a mae 'r ddau yn iawn # a
 \center the water to the river the and is.3SG the \two(m) PRED ok and
 the middle of the water, to the um@fp Tannon River. Um@fp, and the two are okay, and

wedi cael dim niwed ## ar ôl dod i 'r lan # maen nhw 'n cyrraedd boncyff coeden
 PRF get NEG harm on track come to the \shore(f) is.3PL they PROG arrive.at trunk tree
 haven't gotten hurt. After coming to shore, they arrive at a tree trunk

a mae <Ifan> yn gweud wrth <Pero> bod yn dawel achos bod e 'n meddwl
 and is.3SG PROG say to be.INF PRED \quiet because is.COMP he PROG think
 and <Ifan> tells <Pero> to be quiet because he thinks

bosib bod y broga fan hyn # ac yn edrych dros ochr yr [/] y boncyff a dyna
 \possible is.COMP the frog place this and PROG look over side the the trunk and there's
 [it's] possible that the frog is here, and looking over the side of the [/] the trunk and there's

pwy sydd fyny yw mam a tad broga a teulu o brogaod bach ## a mae <Ifan>
 who is.REL up COP mother and father frog and family of frogs little and is.3SG
 who is up is a mother and father frog, and family of little frogs. And <Ifan>

wedi cael tipyn o sioc gweld y teulu 'ma i-gyd fan hyn # a mae fe 'n ## y mam
 PRF get bit of shock see the family here all place this and is.3SG he PROG the mother(f)
 has gotten a bit of a shock seeing this family, all here, and it's, the mother

a tad a mae tua # wyth broga arall 'na <so> mae 'n amlwg mai hyn yw
 and father and is.3SG around eight frog other there is.3SG PRED obvious is.COMP this COP
 father and there are about, eight other frogs there <so> it's obvious that these are the

um@fp brodyr a chwiorydd um@fp broga <Ifan> ## mae <Ifan> mor hapus i 'u um@fp
 -- brothers and sisters frog is.3SG so happy to his
 um@fp brothers and sisters um@fp of <Ifan>'s frog. <Ifan> is so happy to his um@fp

[//] bod e wedi ffeindio broga a mod e 'n mynd i fynd adre naeth
 is.COMP he PRF find frog and \is.COMP he PROG go to \go homeward did.3SG
 [//] that he has found [his] frog and that he is going to go home he

ffarwelio ar y teulu brogaod a mae 'n meddwl bydd rhaid i fe edrych
 say.goodbye on the family frogs and is.3SG PROG think be.3SG.FUT necessity to he look
 said goodbye to the family of frogs and he thinks hw will have to look

ar ôl i-ddo mwy saff o hyn ymlaen
 on track to-him more safe from this on
 after him more safely from here on.

oedd <Tomas> bach yn barod i fynd i gwely a oedd e 'n edrych ar ## um@fp ##
 was.3SG little PRED \ready to \go to bed and was.3SG he PROG look at
 Little <Tomas> was ready to go to bed and he was looking at. um@fp>

<Bob> y broga yn y jar # ah@fp pryd oedd <Tomas> yn cysgu # um@fp penderfynodd
 -- the frog in the jar when was.3SG PROG sleep decided-3SG
 <Bob> the frog in the jar, ah@fp when <Tomas> was sleeping, um@fp [/] the frog decided

i [/] yr broga [/] <Bob> y broga dod mas o 'r jar-en [/] jar a # pryd cododd
 to the frog the frog come out from the jar-SG jar and when rose-3sg
 [/] <Bob> the frog decided to come out of the jar [/] jar and, when <Tomas> got up

<Tomas> naeth e sylweddoli fod y broga wedi mynd ## edrychodd <Tomas>
 did.3SG he realize \is.COMP the frog PRF go looked-3SG
 he realized that the frog had gone. <Tomas> looked

bobman am y broga uh@fp â 'r ci bach <Twm> ## a edrychon nhw tu allan
 \everywhere for the frog with the dog little and looked-3SG they side out
 everywhere for the frog uh@fp with the little dog <Twm>. And they looked outside

y tŷ hefyd am-dano fe ond yn methu gweld e dim unman ## a cwmpodd <Twm> #
 the house also for-him he but PROG fail see he NEG anywhere and fell-3SG
 the house also for him but fail to see him anywhere. And <Twm> fell, uh@fp

uh@fp dros pen y ffenest # a aeth <Tomas> mas i cysuro fe # a nhw galw mas am-dano
 over head the window and went.3SG out to comfort he and they call out for-him
 over the top of the window, and <Tomas> went out to comfort him, and they call out for <him>

<fe> y broga # bobman ## naethon nhw hefyd mynd # o-gwmpas y tir allan i 'r
 he the frog \everywhere did.3PL they also go around the land out to the
 the frog, everywhere. They also went, around the land out[side] the

tŷ a gweiddi mor uchel 'yn nhw 'n gallu # ei enw fe # <Bob> ## daeth uh@fp
 house and shout so high is.3PL they PROG able his name he came.3SG
 house and shouting as loud as they can his name, <Bob>. Uh@fp

picwn-s mas o 'r # [/] mas o 'r tŷ nhw a [/] a ymosod ar <Twm> a ar <Tomas>
 wasps-s out from the out from the house they and and attack on and on
 wasps came out of the, [/] out of their house and [/] and attack <Twm> and <Tomas>.

aeth <Twm> yn trio &cer um@fp [/] neidiodd yn yr [/] yr goeden # aeth <Tomas> wedi
 went.3SG PROG try jumped-3SG in the the \tree(f) went.3SG PRF
 <Twm> went trying &cer um@fp [/] [he] jumped in the [/] in the tree, <Tomas> went

'mlaen y goeden ar ôl e ## a cwmp-odd <Tomas> a oedd y tylluan wedi dod
 onward the \tree(f) on track he and fell-3SG and was.3SG the owl PRF come
 on the tree after him. And <Tomas> fell and the owl had come

mas o 'r [/] o 'r goeden ar ôl e ## a <Twm> wedi mynd [/] wedi mynd a rhedeg
 out from the from the \tree(f) on track he and PRF go PRF go and run
 out of the [/] of the tree after him. And <Twm> gone [/] gone and running

wrth <Tomas> achos oedd y picwns mân dod ar ôl e ## oedd <Tomas> yn
 at because was.3SG the wasps-PL tiny come on track he was.3SG PRED
 to <Tomas> because the wasps were coming after him. <Tomas> was

ofal y tylluan <so> naeth e <climb>-o lan yr [/] yr um@fp # [/] yr uh@fp cerrig ## ac
 \concern the owl did.3SG he -INF up the the the stones and
 worried about the owl <so> he <climb>ed up the [/] the um@fp, [/] the uh@fp stones. And

uh@fp pryd oedd e ar ben y cerrig gweiddi yn uchel fry ble mae [/] ble ych
 when was.3SG he on \head the stones shout ADV high above where is.3SG where is.2PL
 when he was on top of the stones shouting loudly 'where is [/] where are you

chi <Bob> ble ych chi <Bob> # a <Twm> wedi dod yn ôl ## a wedyn ## daeth yr
 you where is.2PL you and PRF come in track and then came.3SG the
 <Bob> where are you <Bob>'. And <Twm> come back. And then. Came the

um@fp # oh@fp # [/] daeth yr # <antelope> <w i 'm yn siwr 'ma> # draw i fel #
 -- came.3SG the is.1SG I NEG PRED sure here over to like
 um@fp, oh@fp, [/] the, <antelope>, came <I'm not sure here>, over to like,

<sa i 'n 'bod> dala <Tomas> lle bod e cwympe yn edrych fel a
 is.1SG.NEG I NEG know catch where is.COMP he fall PROG look like and
 <I don't know>. Catch <Tomas> where he fell looks like and

mae tylluan yn edrych 'fyd a wedyn oedd e yn mynd â <Tomas> i rywle
 is.3SG owl PROG look also and then was.3SG he PROG go with to \somewhere
 an owl looks too and then he was taking <Tomas> somewhere

a mae <Twm> yn dod ar ôl nhw # a wedyn naeth e # xxx fynd â fe a maen
 and is.3SG PROG come on track they and then did.3SG he \go with he and is.3PL
 and <Twm> comes after them and then he, xxx went with him and they

nhw dau cwympe lawr i 'r [/] i 'r uh@fp man serth te ## a cwympe-odd e yn y dŵr
 they two fall down to the to the place steep then and fell-3SG he in the water
 two fall down to the [/] to the uh@fp steep place then. And he fell in the water

y ddau o nhw ## a mae 'n xxx meddwl bod <Twm> yn lico dŵr o-gwbl # um@fp
 the \two(m) of them and is.3SG PROG think is.COMP PROG like water at-all
 the two of them. And [it]'s xxx think that <Twm> [does not] like water at all, um@fp

mae <Tomas> yn eitha [/] <Twm> yw yn dawel a wedyn maen nhw 'n cwtsio
 is.3SG PRED quite COP PRED \quiet and then is.3PL they PROG hug
 <Tomas> is quite [/] <Twm> is quiet and then they hug

ar ôl <e> darn o bren a trio # edrych dros-to fe mewn ffordd # a maen nhw wedi
 on track he piece of \wood and try look over-it he in way and is.3PL they PRF
 behind <it> a piece of wood and try, to look over it in a way, and they have

gweld <Bob> y [/] y broga gyda partner # a maen nhw 'n # [/] mae 'n debyg bod
 see the the frog with partner and is.3PL they PROG is.3SG PRED \likely is.COMP
 seen <Bob> the [/] the frog with a partner, and they, [/] probably there are

mwy o brogaed 'na ## a maen nhw 'n mynd 'n ôl a <Bob> gyda nhw gartre gyda
 more of frogs there and is.3PL they PROG go in track and with they home with
 more frogs there. And they go back and <Bob> with them home with

brogaod eraill yn [/] yn gwyllo nhw
 frogs other PROG PROG watch they
 [the] other frogs [/] watching them.

y llyfr broga ble wyt ti ## mae 'r bachgen bach yn eistedd yn ei stafell wely
the book frog where is.2SG you is.3SG the boy little PROG sit in his room(f) \bed
The book 'Frog Where Are You.' The little boy is sitting in his bedroom

a mae 'na froga mewn # pot jam <dw i 'n meddwl> a mae 'na gi bach yn
and is.3SG there \frog in pot jam is.1SG I PROG think and is.3SG there \dog little PROG
and there's a frog in a, jam pot <I think> and there's a little dog

edrych gyda fe hefyd ## pan mae 'r bachgen bach yn cysgu # mae 'r broga yn
look with he also when is.3SG the boy little PROG sleep is.3SG the frog PROG
looking with him also. When the little boy is sleeping, the frog

dianc ac <chimod> gadael yr [/] y pot a mae 'r bachgen bach yn sylweddoli
escape and you.know leave the the pot and is.3SG the boy little PROG realize
escapes and you know leaves the [/] the pot and the little boy realizes

bod y broga wedi diflannu ## mae 'r bachgen bach yn chwilio yn yr esgid # yn y
is.COMP the frog PRF disappear is.3SG the boy little PROG search in the shoe in the
that the frog has disappeared. The little boy searches in the shoe, in the

pot bobman ond dim golwg o 'r broga mae 'n edrych mas trwy 'r ffenest ##
pot \everywhere but NEG sight of the frog is.3SG PROG look out through the window
pot everywhere but no sign of the frog [he] looks out through the window.

a mae 'r ci yn cwmpo mas trwy 'r ffenest a mae e # yn pigo fe lan #
and is.3SG the dog PROG fall out through the window and is.3SG he PROG pick he up
And the dog falls out through the window and he, picks him up,

mae 'n gweiddi mae fe 'n mynd allan o 'r tŷ i 'r ardd a mae 'n
is.3SG PROG shout is.3SG he PROG go out from the house to the \garden(f) and is.3SG PROG
[he] shouts he goes out of the house to the garden and [he]

gweiddi yn chwilio am y broga ## mae 'n edrych yn y twll lle mae 'na
shout PROG search for the frog is.3SG PROG look in the hole where is.3SG there
shouts looking for the frog. [He] looks in the hole where there is

wiwer bach neu rhywbeth yn dod mas o 'r twll ## mae 'na gwch gwenyn #
\squirrel little or something PROG come out from the hole is.3SG there \hive bees
a little squirrel or something coming out of the hole. There's a beehive,

mae hwn yn cwmpo mae 'n edrych yn coeden ## mae uh@fp [/] mae 'na tylluan
is.3SG this PROG fall is.3SG PROG look in tree is.3SG is.3SG there owl
this falls [he] looks in a tree. There's uh@fp [/] there's an owl

wedyn yn dod mas o 'r goeden felly dyw e ddim yn y goeden ## mae
then PROG come out from the \tree(f) so is.3SG.NEG he NEG in the \tree(f) is.3SG
then coming out of the tree so he isn't in the tree. [He] is

'n dal i edrych mae e mynd i sefyll tu ôl craig fawr i gweiddi am y broga
 PROG continue to look is.3SG he go to stand side track rock(f) \big to shout for the frog
 still looking he goes to stand behind a big rock to shout for the frog,

mae 'na garw tu ôl y &br [/] y goed [/] yr # garreg ## &ti mae 'n dal
 is.3SG there \stag side track the the \trees the \rock(f) is.3SG PROG continue
 there's a stag behind the &br [/] the trees [/] the, rock. &ti [He] is still

i fynd oh@fp a mae 'r bachgen bach yn cwympto <off> ben y carw mewn i 'r
 to \go and is.3SG the boy little PROG fall \head the stag in to the
 going oh@fp and the little boy falls <off> the top of the stag in to the

dŵr ## dim golwg o 'r broga o-hyd # ond mae 'r bachgen bach yn clywed sŵn ## tu
 water NEG sight of the frog still but is.3SG the boy little PROG hear noise side
 water. No sign of the frog still, but the little boy hears a sound. Behind

ôl y boncyff coeden mae 'n mynd i edrych ac yna tu ôl y boncyff
 track the trunk tree is.3SG PROG go to look and there side track the trunk
 the tree trunk [he] goes to look and there behind the trunk

mae 'r broga # a mae 'na xxx froga arall a <lot of> broga<s> bach # a mae e
 is.3SG the frog and is.3SG there \frog other and frog<s> little and is.3SG he
 is the frog, and there's xxx another frog and a <lot of> little frog<s>, and he is

'n hapus a mae 'n chwifio hwyl-fawr wrth y brogaed ac mae e 'n gadael
 PRED happy and is.3SG PROG wave goodbye to the frogs and is.3SG he PROG leave
 happy and [he] waves goodbye to the frogs and he leaves.

mae broga gyda <Ifan> um@fp sy 'n byw mewn jar yn ei stafell e ## mae <Ifan>
 is.3SG frog with is.REL PROG live in jar in his room he is.3SG
 <Ifan> has a frog uh@fp who lives in a jar in his room. <Ifan>

a 'i gi yn mynd i 'r gwely # ac mae 'r broga ## yn diflannu # pan mae
 and his \dog PROG go to the bed and is.3SG the frog PROG disappear when is.3SG
 and his dog go to bed, and the frog, disappears, when

<Ifan> yn dihuno yn y bore # mae 'r broga wedi mynd # a mae e 'n drist ##
 PROG wake in the morning is.3SG the frog PRF go and is.3SG he PRED \sad
 <Ifan> wakes in the morning, the frog has gone, and he is sad.

mae e 'n chwilio yn ei esgid ond dyw e ddim yn gallu ffeindio fe # a mae
 is.3SG he PROG search in his shoe but is.3SG.NEG he NEG PROG able find he and is.3SG
 He looks in his shoe but he can't find him, and

'r ci yn helpu ## maen nhw 'n galw mas trwy 'r ffenest ## ond does dim
 the dog PROG help is.3PL they PROG call out through the window but is.3SG.NEG NEG
 the dog helps. They call out through the window. But there is no

ateb ## mae 'r ci yn cwympto mas o 'r ffenest ## ac yn torri 'r fowlen ## a
 answer is.3SG the dog PROG fall out from the window and PROG break the \bowl(f) and
 answer. The dog falls out of the window. And breaks the bowl. And

mae <Ifan> yn mynd i helpu fe # a mae 'r ci yn hapus iawn i weld e ## maen
 is.3SG PROG go to help he and is.3SG the dog PRED happy very to \see he is.3PL
 <Ifan> goes to help him, and the dog is very happy to see him. They

nhw 'n mynd allan i 'r cae ac yn galw am y broga ## maen nhw 'n mynd
 the PROG go out to the field and PROG call for the frog is.3PL they PROG go
 go out to the field and are calling for the frog. They go

i 'r goedwig ## a mae # uh@fp # nyth # picwn-s um@fp yn y [/] yn y goeden # mae
 to the \forest(f) and is.3SG nest wasps-s in the in the \tree(f) is.3SG
 to the forest. And there is a, uh@fp, nest, of wasps um@fp in the [/] in the tree,

<Ifan> yn galw mewn i dwll yn y ddaear ## a mae anifail bach yn dod mas o
 PROG call in to \hole in the \earth(f) and is.3SG animal little PROG come out from
 <Ifan> calls into a hole in the ground. And a little animal comes out of

'r twll # ac yn cnoi e ar ei drwyn ## mae ci yn cyfarth lan at y nyth ## mae 'r
 the hole and PROG bit he on his \nose is.3SG dog PROG bark up to the nest is.3SG the
 the hole, and bites him on the nose. [The] dog is barking up to the nest. The

picwns [/] mae 'r nyth yn cwympto ar y llawr a mae 'r picwn-s yn grac
 wasps.s is.3SG the nest PROG fall on the ground and is.3SG the wasps-s PRED \angry
 wasps [/] the nest falls on the ground and the wasps are very angry,

iawn # ac yn dod mas o 'r nyth # mae <Ifan> yn ## dringo lan i goeden ac yn
 very and PROG come out from the nest is.3SG PROG climb up to \tree and PROG
 and come out of the nest, <Ifan>, climbs up to a tree and

edrych mewn i twll yn y goeden ## ac yn galw am y froga ## mae gwddihw yn
 look in to hole in the \tree(f) and PROG call for the \frog(m) is.3SG owl PROG
 looks into a hole in the tree. And calls for the frog. An owl

dod mas o 'r goeden a mae 'r picwn-s yn grac iawn ac yn # hedfan ar ôl
 come out from the \tree(f) and is.3SG the wasps-s PRED \angry very and PROG fly on track
 comes out of the tree and the wasps are very angry and are, flying after

y ci ## dyw [/] dyw 'r gwddihw ddim yn hapus iawn gyda <Ifan> ## mae <Ifan>
 the dog is.3SG.NEG is.3SG.NEG the owl NEG PRED happy very with is.3SG
 the dog. The owl isn't [/] isn't very happy with <Ifan>. <Ifan>

yn dringo i-fyny carreg mawr iawn ac yn galw eto am y broga ## a mae 'r
 PROG climb up rock(f) big very and PROG call again for the frog and is.3SG the
 climbs up a very bog rock and calls again for the frog. And the

carw yn dod mas o tu fas i 'r goeden na tu fas i 'r garreg ## a mae <Ifan>
 stag PROG come out from side out to the \tree(f) no side out to the \rock(f) and is.3SG
 stag comes out from outside the tree no outside the rock. And <Ifan>

yn <stuck> ar pen y carw mae 'r carw yn car[io] lan i-ffwrdd ## a mae <Ifan>
 PRED on head the stag is.3SG the stag PROG carry up away and is.3SG
 is <stuck> on the stag's head the stag carries [him] up away. And <Ifan>

a 'r ci yn cwmpo mewn i pwll ## ond maen nhw 'n saff # a maen
 and the dog PROG fall in to pool but is.3PL they PRED safe and is.3PL
 and the dog fall into a pool. But they are safe, and they

nhw 'n clywed rhywbeth tu hôl [/] tu ôl i
 they PROG hear something side \track side track to
 hear something behind [/] behind a

goeden ## mae <Ifan> yn gweud wrth y ci fod yn dawel ac
 \tree is.3SG PROG say to the dog \be.INF PRED \quiet and
 tree. <Ifan> tells the dog 'be quiet' and

maen nhw 'n edrych dros ben y boncyff ## a maen nhw 'n ffeindio 'r broga #
 is.3PL they PROG look over \head the trunk and is.3PL they PROG find the frog
 they look over the top of the trunk. And they find the frog,

sydd wedi ffeindio ei # wraig # a mae llawer o brogaod bach gyda nhw ## a mae
 is.REL PRF find his \wife and is.3SG many of frogs little with they and is.3SG
 who has found his, wife, and they have a lot of little frogs. And

<Ifan> yn mynd â un broga bach adre gyda fe ## y diwedd
 PROG go with in frog little homeward with he the end
 <Ifan> takes one little frog home with him. The end.

un nos oedd bachgen bach yn gweud nos da i 'r broga bach ## <off> â fe i
 one night was.3SG boy little PROG say night(f) good to the frog little with he to
 One night a little boy was saying goodnight to the little frog. <Off> with him to

'r [/] i 'u wely gyda ci bach yn gorwedd ar y gwely # ac yn ganol nos neidi-odd
 the to his \bed with dog little PROG lie on the bed and in \middle night jumped-3SG
 the [/] to his bed with a little dog lying on the bed, and at midnight

y broga mas o 'r jar # yn y bore mae 'r bachgen bach yn diuno ac yn
 the frog out from the jar in the morning is.3SG the boy little PROG wake and PROG
 the frog jumped out of the jar, in the morning the little boy wakes and

chwilio am y broga # ydy e yn ei sgidiau? # na 'dy # ydy e o-dan y
 search for the frog is.3SG.Q he in his shoes NEG is.3SG.Q is.3SG.Q he under the
 searches for the frog, is he in his shoes? no, is he under the

gwely? # na 'dy # oedd y bachgen bach yn galw 'r broga mas o 'r
 bed NEG is.3SG.Q was.3SG the boy little PROG call the frog out from the
 bed? no, the little boy was calling the frog out of the

fffenest broga ble wyt ti? ## aeth y ci bach a bachgen bach am dro i
 window frog where is.2SG you went.3SG the dog little and boy little for \turn to
 window 'frog where are you?' The little dog and little boy went for a walk to

chwilio am y broga # broga ble wyt ti? # bant â nhw i 'r goedwig i chwilio
 search for the frog frog where is.2SG you away with they to the \forest(f) to search
 search for the frog, 'frog where are you? away with them to the forest to search

amdano fe ydy e yn y twll yn y ddaear? # na 'dy medd yr mochyn ddaear
 for-him he is.3SG.Q he in the hole in the \earth(f) NEG is.3SG.Q said the pig(m) \earth
 for him is he in the hole in the ground?, 'no' said the groundhog

wrth ddod mas a cnoi trwyn y bachgen bach ## ydy e lan yn y goeden yn y twll
 as \come out and bite nose the boy little is.3SG.Q he up in the \tree(f) in the hole
 as [he] comes out and bites the little boy's nose. Is he up in the tree in the hole

yn y goedwig? ## naeth y bachgen bach edrych mewn i 'r goeden a daeth
 in the \forest(f) did.3SG the boy little look in to the \tree(f) and came.3SG
 in the forest? The little boy looked into the tree and a

gwdihw fawr mas o 'r goeden # na 'dy dyw e ddim fan hyn ## aeth y
 owl(m) \big out from the \tree(f) NEG is.3SG.Q is.3SG.NEG he NEG \place this went.3SG the
 big owl came out of the tree, 'no he isn't here'. The

bachgen bach lan i ben y garreg fawr i edrych ydy 'r broga bach lan fan hyn #
 bot little up to \head the \rock(f) \big to look is.3SG.Q the frog little up \place this
 little boy went up on top of the big rock to look is the little frog up here,

na 'dy medd yr carw fi sy 'n byw fan hyn ## cari-odd y carw 'r bachgen
 NEG is.3SG.Q said the stag I is.REL PROG live \place this carried-3SG the stag the boy
 'no' said the stag 'I live here'. The stag carried the little boy

bach a 'i daflu dros y clawdd lawr i 'r llawr # a mewn i 'r dŵr â fe a ci
 little and his \toss over the ditch down to the ground and in to the water with he and dog
 and tossed him over the ditch down to the ground, and into the water with him and little dog,

bach # welodd e boncyff coeden fawr # ydy e dros y boncyff? medd yr bachgen bach
 little saw-3SG he trunk tree(f) \big is.3SG.Q he over the trunk said the boy little
 he saw a big tree trunk, 'is he over the trunk?' said the little boy,

ydyn # tu ôl y boncyff oedd 'na <Mrs.> broga a <Mr.> broga yn eistedd gyda
 is.3PL.Q side track the trunk was.3SG there frog and frog PROG sit with
 yes, behind the trunk there was <Mrs.> frog and <Mr.> frog sitting with

chwech o brogaod bach ## hwyl-fawr <Mr.> broga # diolch am fenthyg y broga bach #
 six of frogs little goodbye frog thanks for \lend the frog little
 six little frogs. 'Goodbye <Mr.> Frog, thanks for lending the little frog,

na i edrych ar ei ôl e ac <off> â 'r bachgen bach i edrych ar ôl y
 do.1SG.FUT I look on his track he and with the boy little to look on track the
 I will look after him' and <off> with the little boy to look after the

broga # y diwedd
 frog the end
 frog, the end.

mae 'r bachgen bach yn barod i fynd i wely ac yn chwarae efo 'r broga a 'i
 is.3SG the boy little PRED \ready to \go to \bed and PROG play with the frog and his
 The little boy is ready to go to bed and is playing with the frog and his

ci bach um@fp tra bod y bachgen bach yn [/] yn cysgu mae 'r broga yn
 dog little while is.COMP the boy little PROG PROG sleep is.3SG the frog PROG
 little dog um@fp while the little boy is [/] is sleeping the frog

diengyd o 'r [/] o 'i &wel wely # yna mae 'r bachgen bach yn deffro ac yn
 escape from the from his \bed then is.3SG the boy little PROG wake and PROG
 escapes from the [/] from his &wel bed, then the little boy wakes and

gweld bod y broga 'di mynd ## mae 'n edrych yn ei sgidiau mae 'r ci
 see is.COMP the frog PRF go is.3SG PROG look in his shoes is.3SG the dog
 see that the frog has gone. [He] looks in his shoes the dog

yn edrych mae o 'n edrych o-gwmpas ei lofft i-gyd mae o 'n edrych
 PROG look is.3SG he PROG look around his \room all is.3SG he PROG look
 looks he looks around all his room he looks

tu allan y ffenest # ac yna mae 'r ci yn neidio allan o 'r ffenest i chwilio
 side out the window and then is.3SG the dog PROG jump out from the window to look
 outside the window, and then the dog jumps out of the window to look

<dw i 'n meddwl> am y broga ac um@fp mae 'r bachgen bach yn [/] yn dal
 is.1SG I PROG think for the frog and is.3SG the boy little PROG PROG hold
 <I think> for the frog and um@fp the little boy [/] holds

y ci rhag rhedeg i-ffwrdd # maen nhw 'n gweiddi ac yn edrych yn y coed i
 the dog from run away is.3PL they PROG shout and PROG look in the trees to
 the dog from running away, they shout and look in the trees to

weld os 'dy 'r broga bach yna mae 'r [/] mae 'r bachgen bach yn [/] yn gweiddi
 \see if is.3SG.Q the frog little there is.3SG the is.3SG the boy little PROG PROG shout
 see if the frog is there the [/] the little boy [/] shouts

lawr tyllau ac yna mae 'na [/] mae o 'n gweld nyth gwenyn ac mae o 'n
 down holes and then is.3SG there is.3SG he PROG see nest bees and is.3SG he PROG
 down holes and then there's [/] he sees a bees' nest and he is

dal i weiddi ## mae o-hyd yn neud yn edrych mewn coeden i weld os 'dy 'r
 continue to \shout is.3SG still PROG do PROG look in tree to see if is.3SG.Q the
 still shouting. [He] is still doing looking in a tree to see if the

broga dim i fewn i 'r coeden ac um@fp mae o 'n cwmpo allan o 'r goeden
 frog NEG to \in to the tree(f) and is.3SG he PROG fall out from the \tree(f)
 frog isn't into the tree and um@fp he falls out of the tree

achos mae 'na gwddihw wedi dod i deud helo a mae 'r ci bach yn rhedeg
 because is.3SG there owl PRF come to say hellp and is.3SG the dog little PROG run
 because there's an owl come out to say hellp and the little dog runs

i-ffwrdd achos mae 'r gwenyn yn rhedeg ar ei ôl ## yna mae 'r bachgen bach
 away because is.3SG the bees PROG run on his track then is.3SG the boy little
 away because the bees are running after him. Then the little boy

yn dod i garreg ac mae o dal i weiddi i weld lle mae 'r broga ## yna
 PROG come to \rock and is.3SG he continue to \shout to \see where is.3SG the frog then
 comes to a rock and he is still shouting to see where the frog is. Then

mae o 'n gweld carw # a mae 'r carw yn mynd â fo ar ei gefn ## ond mae
 is.3SG he PROG see stag and is.3SG the stag PROG go with he on his \back but is.3SG
 he sees a stag, and the stag takes him on his back. But

o 'n cwmpo lawr dipyn # ac i mewn i nant ## yna # mae o 'n clywed sŵn
 he PROG fall down precipice and to in to stream then is.3SG he PROG hear sound
 he falls down a precipice, and into a stream. Then, he hears a sound

ond mae o 'n deud wrth y ci fod yn dawel ## mae o yn edrych dros
 but is.3SG he PROG say to the dog \be.INF PRED \quiet is.3SG he PROG look over
 but he tells the dog to be quiet. He looks over a

boncyff coeden ac yn dod-o-hyd-i 'r broga # nid un broga ond teulu o brogaod ## yna
 trunk tree and PROG find the frog NEG one frog but family of frogs then
 tree trunk and finds the frog, not one but a family of frogs. Then

mae 'r bachgen bach yn penderfynu bod angen i 'r broga aros gyda 'i
 is.3SG the boy little PROG decide is.COMP need to the frog stay with his
 the little boy decides that the frog needs to stay with his

deulu ac yn ffarwelio 'thyn nhw ## hwyl-fawr
 \family and PROG say.goodbye at-them they goodbye
 family and says goodbye to them. 'Goodbye.'

un bore dihun-odd <Twm> yn gynnar a fyny aeth i siarad gyda 'i ei froga
 one morning woke-3SG ADV \early and up went.3SG to speak with his his \frog
 One morning <Twm> woke up early and up he went to speak with his his frog

ei anifail anwes a gan <Twm> froga a fe gynddo fe ci bach o 'r enw <Jim> ##
 his animal pet and with \frog and AFF with-him he dog little of the name
 his pet and <Twm> [had] a frog and he [had] a little dog by the name of <Jim>.

oedd <Jim> yn ci bach frown a oedd e 'n hoffi siglo 'i cwt pryd-byynna' oedd
 was.3SG PRED dog little \brown and was.3SG he PROG like shake his tail when-ever was.3SG
 <Jim> was a little brown dog and he he liked to shake his tail whenever

<Twm> yn edrych arno ## wedi <Twm> i chwarae gyda <Jim> a 'r broga bach roedd
 -- PROG look on-him after to play with and the frog little was.3SG
 <Twm> was looking at him. After <Twm> played with <Jim> and the little frog [he] was

wedi blino 'n lân a aeth i gysgu am damed ar ei wely # tra fod <Twm> yn
 PRF tire PRED clean and went.3SG to \sleep for \bit on his \bed while \is.COMP PROG
 tired out and went to sleep for a bit on his bed, while <Twm> was

cysgu wnaeth y broga drwg ddringo allan o 'i botel allan a dechrau symud o-gwmpas
 sleep did.3SG the frog bad \climb out from his \bottle out and begin move around
 sleeping the bad frog climbed out of his bottle out and began to move around

ystafell gwely <Twm> # pan wnaeth <Twm> ddihuno # sylw-odd bod y broga
 room(f) bed when did.3SG \wake observed-3SG is.COMP the frog
 <Twm>'s bedroom, when <Twm> woke up, [he] saw that the frog

wedi dianc gafodd fraw dechreu-odd e a <Jim> y ci i chwilio am y broga drwg ##
 PRF escape got.3SG \fright began-3SG he and the dog to search for the frog bad
 had escaped he got a fright he and <Jim> the dog began to search for the bad frog.

edrych-odd e yn ei sgidiau # edrych-odd e o-dan y gwely # edrych-odd e dan y gadair
 looked-3SG he in his shoes looked-3SG he under the bed looked-3SG he under the \chair(f)
 [He] looked in his shoes, he looked under the bed, he looked under the chair,

a buodd <Jim> y ci bach yn snyffian o-gwmpas i weld oedd e medru dyfalu
 and was.3SG the dog little PROG sniff around to \see was.3SG he able guess
 and <Jim> the little dog sniffed around to see was he able to guess

le yn union oedd y broga drwg wedi mynd ## aethon nhw draw i 'r ffenest
 \where ADV exact was.3SG the frog bad PRF go went.3PL they over to the window
 where exactly the bad frog had gone. They went over to the window

a gweiddi allan drwy 'r ffenest am y broga # erbyn hyn mae <Jim> y ci drwg wedi
 and shout out through the window for the frog by this is.3SG the dog bad PRF
 and shouting out through the window for the frog, now <Jim> the bad dog has

cael ei ben yn sownd yn <stuck> yn y botel ## wrth i <Twm> a <Jim> bwyso allan o
 get his \head PRED stuck PRED in the \bottle(f) as to and \lean out from
 got his head stuck stuck in the bottle. As <Twm> and <Jim> lean out of

'r ffenest # fe naeth <Jim> y ci bwyso gormod a gwympodd gwympodd ar ei
 the window AFF did.3SG the dog \lean too.much and \fell-3SG \fell-3SG on his
 the window, <Jim> the dog leaned too much and fell fell on his

ben allan o 'r ffenest ## neidi-odd <Twm> allan er-mwyn achub <Jim> # roedd
 \head out from the window jumped-3SG out for.the.sake.of save was.3SG
 head out of the window. <Twm> jumped out in order to save <Jim>,

y botel gwydr yn darnau mân ar y llawr ## mi wnaeth <Jim> lyfu <Twm> gyda 'i
 the \bottle(f) glass in pieces fine on the ground AFF did.3SG \lick with his
 the glass bottle was in little pieces on the ground. <Jim> licked <Twm> with his

dafod mawr gwlyb # aethant i-lawr i 'r ardd # i weiddi ymhlith [/] ymysg y
 \tongue big wet went-3PL down to the \garden(f) to \shout among among the
 big wet tongue, [they] went down to the garden, to shout among the

coed # gweiddi am y broga oedden nhw xxx gael dim broga ## um@fp wedi 'r
 trees shout for the frog was.3PL they \get NEG frog after the
 trees, shouting for the frog they were xxx getting no frog. Um@fp after the

chwilio ychydig ffeindi-odd <Jim> nyth wenyn ## oedd gyda xxx daeth y gwenyn
 search little found-3SG nest(m) \bees was.3SG with came.3SG the bees
 searching a little bit <Jim> found a bees' nest. There was with xxx the bees came

allan a 'i um@fp erlid o-gwmpas y coed # um@fp tra oedd <Jim> yn rhedeg
 out and his pursue around the forest while was.3SG PROG run
 out and um@fp pursued him around the forest, um@fp while <Jim> was running

i-ffwrdd wrth y gwenyn oedd <Twm> yn chwilio am y broga daeth e
 away from the bees was.3SG PROG search for the frog came.3SG he
 away from the bees <Twm> was searching for the frog he came

dros twll yn y ddaear # 'drych-odd e mewn i 'r twll yn sydyn daeth yr
 over hole in the \earth(f) looked-3SG he in to the hole ADV sudden came.3SG the
 across a hole in the ground, he looked into the hole suddenly the

greadur bach fe xxx allan ## nid yw xxx beth yw y creadur ond dwed-wn i
 \creature(m) little AFF out NEG COP what COP the creature but say-1SG.SBJV I
 little creature came xxx out. Not a xxx what was the creature but I'd say

mai gwahadden yw e # gwahadden ## byw yn y twll yn y ddaear # um@fp erbyn
 is.COMP mole COP he mole live in the hole in the \earth(f) by
 that it is a mole, a mole, living in the hole in the ground. Um@fp now

hyn fe <Twm> wedi benderfynu neidio i-fyny 'r goeden dderw gerllaw a chwilio yn y
 this AFF PRF \decide jump up the \tree(f) \oak nearby and search in the
 <Twm> having decided to jump up the oak tree nearby and search in the

goeden meddwl i weld oedd y broga yn cuddio ymysg y brigau ## roedd <Jim>
 \tree(f) think to \see was.3SG the frog PROG hide among the braches was.3SG
 tree thinking to see the frog was hiding among the branches. <Jim> was

o-hyd yn ceisio diengyd oddi-wrth y gwenyn oedd erbyn hyn yn um@fp rhedeg ar ei
 still PROG try escape from the bees was.3SG by now PROG run on his
 still trying to escape from the bees [who] were now um@fp running after

ôl [/] yn hedfan ar ôl dyn nhw neud ## um@fp cwmpodd <Twm> allan o 'r
 track PROG fly on track is.3PL they do fell-3SG out from the
 him [/] flying after they do. Um@fp <Twm> fell out of the

goeden wrth weld <Jim> yn rhedeg heibio gyda gwenyn wrth ei gwt ## oh@fp 'na dylluan
 \tree(f) at \see PROG run past with bees at his \tail there \owl
 tree as [he] saw <Jim> running past with bees on his tail. Oh@fp there's an owl

yn y goeden # a dihun-odd honnw oedd glywed ryw-fath sŵn # fe 'na <hullabaloo>
 in the \tree(f) and woke-3SG that was.3SG \hear \some-sort noise AFF there
 in the tree, and that woke up he [who] was hearing somesort of noise, there [was] a <hullabaloo>

yn yr ardd ## y gwenyn yn <chas>-o 'r ci # <Twm> ar ei gefn wedi cwmpo allan
 in the \garden(f) the bees PROG -INF the dog on his \back PRF fall out
 in the garden. The bees chasing the dog, <Twm> on his back fallen out

o 'r goeden a dyna beth dihun-odd y dylluan ## hedfan-odd y dylluan i-ffwrdd
 from the \tree(f) and that's what woke-3sg the \owl(f) flew-3SG the \owl(f) away
 of the tree and that's what woke the owl. The owl flew away

i-fyny 'r awyr yn gobeithio bod i mynd i weld broga a helpu nhw ffeindio
 up the sky PROG hope is.COMP to go to \see frog and help them find
 up to the sky hoping that to go to see and help them find

froga ## um@fp mae fan 'na graig xxx yn yr ardd a benderfyn-odd
 \frog is.3SG place there \rock in the \garden(f) and \decided-3SG
 a frog. Um@fp there's a rock xxx in the garden and <Twm> decided

<Twm> byddai 'n syniad i ddringo i-fyny ben y garreg fawr er-mwyn gweld
 -- is.3SG.SBJV PRED idea to \climb up \head the \stone(f) \big in.order.to see
 it would be an idea to climb up the big stone in order to see

ar-draws yr ardd a galw [/] a galw am y broga ## erbyn hyn benderfynodd <Twm>
 across the \garden(f) and call and call for the frog by this \decided-3SG
 across the garden and call [/] and call for the frog. Now <Twm> decided

oedd angen cymorth pellach arno a galwodd ar ei ffrind y carw i fod i 'u
 was.3SG need help further on-him and called.3SG on his friend the stag to \be to their
 he needed further help and called on his friend the stag

helpu ffeindio 'r broga # oedd <Twm> wedi blino a neidi-odd i gefn y carw fel
 help find the frog was.3SG PRF tire and jumped-3SG to \back the stag like
 help them find the frog, <Twm> was tired and jumped to the back of the stag as

bod e 'n galled xxx #um@fp i drio gafael yn ei ffrind broga ##
 is.INF he PROG able to \try grasp in his friend frog
 he could xxx to try to get hold of his friend frog.

ond wrth i carw i fynd yn sydyn um@fp fe daeth e ar-draws <ha> [/] ar-draws
 but as to stag to \go ADV sudden AFF came.3SG he across across
 but as the stag went suddenly um#fp he came across <ha> across

clogwy[n] cwmpodd o carw i-lawr y clogwyn am bod y porfa yn wlyb
 cliff fell-3SG from stag down the cliff because is.COMP the grass(f) PRED \wet
 a cliff [he] fell from a stag down the cliff because the grass was wet

a gyda hwnna cwmp-odd <Twm> a <Jim> i-lawr dros-do clogwyn a cwmpo yn ganol
 and with that fell-3SG and down over-him cliff and fall in \middle
 and with that <Twm> and <Jim> fell down over it a cliff and fall in the middle

xxx lawr ac i-lawr i mewn i 'r llyn # <glwtch> ## dyna le o-'n nhw # yn
 \down and down to in to the lake there's where was-3PL they PRED
 of xxx, down down into the lake, <glutch>. That's where they were,

'lyb <soppin> yn y llyn ## <glimb>-odd <Jim> i ben <Twm> i drio xxx weld xxx xxx
 \wet in the lake \<>-3SG.PST to \head to \try \see
 <sopping> wet in the lake. <Jim> <climb>ed on top of <Twm>, to try xxx to see xxx xxx

achub ei hunan o 'r llyn #um@fp a gyda nhw wel-on nhw darn o bren a
 save his self from the lake and with them \saw-3PL they piece of \wood and
 save himself from the lake, um@fp and with them they saw a piece of wood and

penderfynu byddai 'n syniad dringo 'mlaen i 'r pren a dod allan o 'r llyn ##
 decide is.3SG.SBJV PRED idea climb on to the wood and come out from the lake
 decide it would be an idea to climb on to the wood and come out of the lake.

wrth i <Twm> i ddringo allan i 'r llyn fe gwmp-odd ei drwsus i-lawr a gaf-odd
 as to to \climb out to the lake AFF \fell-3SG his \pants down and \got-3SG
 As <Twm> climbs out [of] the lake his pants fell down and got

i-ddo fe xxx 'n sownd a xxx tynnu nhw i-fyny ## ac i-ddo fe ei lithro eto ## tu ôl #
 to-him he PROG stuc and pull they up and to-him he his \slide again side track
 him xxx stuck and xxx pulling them up. And he slides again. Behind, uuh@fp

uuh@fp goeden fawr uh@fp um@fp # hm@fp <beth yw hwnna gweud> ## bonyn coeden wedi
 \tree(f) \big what COP that say trunk tree PRF
 a big tree uh@fp um@fp, hm@fp <what's that [do we] say>. A fallen tree trunk,

cwmpo dyna beth oedd y pren # o xxx anferth tu ôl y bonyn gwel-on nhw #
 fall that's what was.3SG the wood from huge side track the trunk saw-3PL they
 that's what the wood was, from a huge xxx behind the trunk they saw,

ddau froga # a gyda 'na xxx o frogaod bach yn cuddio ymysg y pysg ###
 \two \frog and with that of \frogs little PROG hide among the fish
 two frogs, and with that xxx of little frogs hiding among the fish.

mae 'n amlwg bod y broga wedi ffeindio cariad a wedi cael teulu dros dro ## fe
 is.3SG PROG obvious is.COMP the frog PRF find love and PRF get family over \time AFF
 It's obvious that the frog has found his sweetheart and got a temporary family .

aeth <Twm> â un o brogaod mae 'n amlwg mai un o brogaod bach yma
 went.3SG with one of frogs is.3SG PRED obvious is.COMP one of frogs little here
 <Twm> took one of [the] frogs it's clear that one of [the] little frogs here

oedd # y froga # <ok>
 was.3SG the \frog
 was, the frog, <ok>.

yn y llun yma mae 'r bachgen yn gorwedd ar gwely ## mae [/] mae 'r ci
 in the picture here is.3SG the boy PROG lie on bed is.3SG is.3SG the dog
 In this picture the boy is lying on the bed. The dog is [/] is

wrth ei gefn e ac uh@fp ar y llawr wedyn mae llawer o bethau ar y llawr ##
 at his \back he and on the ground then is.3SG many o \things on the ground
 at his back and uh@fp on the floor then there are a lot of things on the floor.

mae gyda ni sliperi ## mae gyda ni esgidiau uchel ## mae gyda ni sedd [/] sedd
 is.3SG with we slippers is.3SG with we shoes high is.3SG with we seat seat(f)
 We have slippers. We have high boots. We have a seat a

fychan iawn tair coes # hefyd mae gyda ni siwmpwr # ac un hosan ac yn y canol
 \little very three leg also is.3SG with we sweater and one sock and in the center
 very little seat three legs, also we have a sweater, and one sock and in the middle

wedyn # mae [/] mae jar [/] mae jar wydr ## um@fp mae 'r bachgen yn edrych
 then is.3SG is.3SG jar is.3SG jar(f) \glass is.3SG the boy PROG look
 then, there's a [/] there's a jar [/] there's a glass jar. Um@fp the boy is looking

yn chwilfrydig mae e 'n meddwl am y pethau neu mae golwg ofnus
 PRED curious is.3SG he PROG think about the things or is.3SG look anxious
 crious he's thinking about the things or there's an anxious look

ar-no fe dyn ni ddim yn siwr ## um@fp mae 'r gwely yn fawr ac mae um@fp ar
 on-him he is.1PL we NEG PRED sure is.3SG the bed PRED \big and is.3SG on
 on him we aren't sure. Um@fp the bed is big and there is um@fp on

bob ochr y gwely wedyn [/] mae um@fp wel fel # beth allen ni ddweud um@fp #
 \each side the bed then is.3SG well like what \able.1PL.SBJV we \say
 each side of the bed then [/] there's um@fp well like, what could we say um@fp,

dim ffon ond um@fp prennau uchel ac uh@fp golau a-betai ar ben y prennau ##
 NEG stick but wood.pieces high and light as.it.were on \head the wood.pieces
 not a stick but um@fp high wooden pieces and uh@fp light as it were on top of the wood.

mae ffenest i 'r ystafell hefyd eh@fp ffenest fychan ## oh@fp yn y llun blaenorol
 is.3SG window to the room also window(f) \little in the picture following
 There's a window to the room also eh@fp a little window. Oh@fp in the following picture

mae 'na froga # [/] mae 'na froga yn camu allan o 'r jar ac fallai bod y
 is.3SG there \frog is.3SG there \frog PROG step out from the jar and maybe is.COMP the
 there's a frog, [/] there's a frog stepping out of the jar and maybe the

bachgen yn y llun wedyn yn meddwl wel ble mae 'r [/] mae 'r broga wedi
 boy in the picture after PROG think well where is.3SG the is.3SG the \frog PRF
 boy in the picture then thinks 'well where has the [/] has the frog

mynd mae e 'n chwilio mae 'n ofni efallai # bod y broga yn mynd i
go is.3SG he PROG search is.3SG PROG fear maybe is.COMP the frog PROG go to
gone?' he searches he fears maybe, that the frog is going to

neidio -'no fe uh@fp neb o 'r y ci 'm yn chwilio am y broga # wrth
jump [from]-it he no.one from the the dog here PROG search for the frog by
jump [from] it uh@fp no one [apart] from this dog is searching for the frog, of

cwrs roedd y broga yn neidio allan pan roedd y lleuad uh@fp allan felly
course was.3SG the frog PROG jump out when was.3SG the moon out so
course the frog was jumping out when the moon was uh@fp out so

roedd y bachgen yn cysgu yn y gwely bryd hynny ## <o'r-gorau> ## um@fp ar ôl #
was.3SG the boy PROG sleep in the bed \when that alright on track
the boy was sleeping in the bed at the time. <Alright>. Um@fp after,

yn y llun nesa wedyn # wrth cwrs mae 'r bachgen yn gwisgo ## mae e wedi
in the picture next then at course is.3SG the boy PROG dress is.3SG he PRF
in the next picture then, of course the boy is dressing. He has

neud llanast ar y llawr mae e wedi troi neu mae 'r ci wedi neud mae 'r
make mess on the ground is.3SG he PRF turn or is.3SG the dog PRF make is.3SG the
made a mess on the ground he has turned of the dog has made the

[/] mae 'r [/] mae 'r sedd wedi troi wyneb &i i-waered # mae 'r coesau i-fyny #
is.3SG the is.3SG the seat PRF turn face down is.3SG the legs up
[/] the [/] the seat upside &i down, the legs are up,

ac mae e 'n gwisgo [/] gwisgo 'i siwmpwr # gwisgo wedyn xxx e 'n gwisgo dim-ond
and is.3SG he PROG wear wear his sweater wear then he PROG wear only
and he's wearing [/] wearing his sweater, wearing then xxx he wearing only

un esgid sydd yn y llun # ond dwy esgid yn y llun blaenorol # dw i ddim yn
one shoe is.REL in the picture but two shoe(f) in the picture following is.1SG I NEG PROG
one shoe which is in the picture, but two shoes in the following picture, I don't

gwybod ble mae 'r &es oh@fp [/] ydy mae 'r esgid <ya> dim ei siwmpwr xxx
know where is.3SG the yes is.3SG the shoe NEG his sweater
know where the &es oh@fp [/] yes the shoe is <ya> not his sweater xxx

mae e 'n &gwis [/] mae e 'n dal yr esgudiau uwch ei ben dyna beth mae
is.3SG he PROG is.3SG he PROG hold the shoes over his \head that's what is.3SG
he's &gwis [/] he's holding the shoes over his head that's what he's

e 'n gwneud ## felly dyna beth sy 'n digwydd yn y llun yna ## yn y llun
he PROG do so that's what is.REL PROG happen in the picture there in the picture
doing. So that's what's happening in that picture. In the next picture,

nesa # wel beth sy 'n digwydd yn y llun nesa mae uh@fp [/] mae 'r bachgen
next well what is.REL PROG happen in the picture next is.3SG is.3SG the boy
well what is happening in the next picture uh@fp [/] the boy

wedi agor y ffenest mae e 'n gweiddi [/] gweiddi ar rywun # dw i ddim
 PRF open the window is.3SG he PROG shout shout on \someone is.1SG I NEG
 has opened the window he's shouting [/] shouting for someone, I don't

yn gwybod pwy ## chwilio am y froga fallai <ie> ond fallai bod e 'n
 PROG know who search for the \frog maybe yes but maybe is.COMP he PROG
 know who. Looking for the frog maybe <yes> but maybe he's

gweiddi am help achos mae 'r ci # [/] mae pen y ci yn y jar wydr ## ac
 shout for help because is.3SG the dog is.3SG head the dog in the jar(f) \glass and
 shouting for help because the dog, [/] the dog's head is in the glass jar. And

fallai bod y ci yn sownd # a fallai bod y bachgen yn gweiddi am help #
 maybe is.COMP the dog PRED stuck and maybe is.COMP the boy PROG shout for help
 maybe the dog is stuck, and maybe the boy is shouting for help,

helpwch fi os gwelwch chi 'n dda # helpwch fi # ond beth sy 'n digwydd
 help-2PL.IMPV I if see.2PL you ADV \good help-2PL I but what is.REL PROG happen
 'help me please, help me', but what happens

nesa # mae 'r ci wedi syrthio allan o 'r ffenest ## mae e 'n syrthio i-lawr
 next is.3SG the dog PRF fall out from the window is.3SG he PROG fall down
 next, the dog has fallen out of the window. He falls down

i-lawr ac wrth cwrs mae 'r jar yn chwalu ac mae 'r bachgen yn <cuddl>-o yn y
 down and at course is.3SG the jar PROG smash and is.3SG the boy PROG -INF in the
 down and of course the jar scatters and the boy cuddles the

ci yn ddiogel # mae e 'n rhydd o fod yn y jar ## a does dim sôn
 dog ADV \safe is.3SG he PRED free from \be.INF in the jar and is.3SG.NEG NEG mention
 dog safely, he's free from being in the jar. And there's no sign

am y broga # mae 'r broga wedi mynd # does dim # xxx o-hono fe ##
 about the frog is.3SG the frog PRF go is.3SG.NEG NEG from-him he
 of the frog, the frog has gone, there's no, xxx of him.

mae e siwr-o-fod wedi mynd i 'r goedwig ## <pwy a wyr> <who knows> ## iawn ##
 is.3SG he probably PRF go to the \forest(f) who REL know.3SG okey
 He has probably gone to the forest. <Who knows> <who knows>. Okey.

(tipynbach mwy) <ti 'n moyn mwy?> <okey> # mae 'r oh@fp [/] mae 'r &bach
 bit more you PROG want more is.3SG the is.3SG the
 (a bit more) <you want more?> <okey>, the oh@fp [/] the &bach

[/] mae 'r ci yn gweld nyth cacwn yn y goeden # ac mae 'r gwenyn yn hedfan
 is.3SG the dog PROG see nest wasps in the \tree(f) and is.3SG the bees PROG fly
 [/] the dog sees a wasps' nest in the tree, and the bees fly

o 'r [/] # o 'r nyth yma ## um@fp mae 'r bachgen yn gweiddi [/] gweiddi lawr
 from the from the nest here is.3SG the boy PROG shout shout down
 from the, [/] from the nest here. Um@fp the boy is shouting [/] shouting down

y twll ## <oo> beth sydd yn y twll # beth sydd yn y twll? <beth yw e? dw i ddim
 the hole what is.REL in the hole what is.REL in the hole what COP e is.1SG I NEG
 the hole. '<Oo> what's in the hole, what's in the hole?' <What is is? I'm not

yn siwr <ha ha> # beth yw e? beth yw 'r creadur? um@fp ife um@fp ## dw i ddim
 PRED sure what COP he what COP the creature is.it is.1SG I NEG
 sure <ha ha>, what is it? What's the creature? Um@fp is it um@fp. I don't

yn gwybod> (yn Saesneg <like gopher>) <gopher> oh@fp <dw i ddim yn gwybod
 PROG know in English is.1SG I NEG PROG know
 know> (in English <like a gopher>) <gopher> oh@fp <I don't know

beth yw <gopher> yn Gymraeg> <'s dim syniad 'da fi> um@fp <dim
 what COP in \Welsh is.3SG.NEG NEG idea with I NEG
 what <gopher> is in Welsh> <I have no idea> um@fp <not a

daeargi> # <nage> # gwahadden fallai gwahadden un dywyll gwahadden &s <mole> > ##
 terrier no mole maybe mole one \dark mole
 terrier>, <no>, a mole maybe a dark one mole &s a <mole>>.

<ya> <mole> gwahadden # ac um@fp oh@fp mae 'r ci yn uh@fp edrych i-fyny 'r
 -- mole and is.3SG the dog PROG look up the
 <ya> <mole> mole, and um@fp oh@fp the dog is uh@fp looking up the

goeden lle mae 'r nyth cacwn ## a nesa mae 'r nyth cacwn wedi cwmpo i 'r
 \tree(f) where is.3SG the nest wasps and next is.3SG the nest wasps PRF fall to the
 tree where the wasps' nest is. And next the wasps' nest has fallen to the

llawr ac mae 'r gwenyn yn dod allan ## yn cyflym iawn ## mae 'r bachgen wedi
 ground and is.3SG the bees PROG come out ADV fast very is.3SG the boy PRF
 ground and the bees are coming out. Very quickly. The boy has

mynd dringo 'r goeden # hm@fp mae twll yn y goeden # mae 'n edrych mewn i 'r
 go climb the \tree(f) is.3SG hole in the \tree(f) is.3SG PROG look in to the
 gone to climb the tree. Hm@fp there's a hole in the tree, [he] looks into the

goeden ## ah@fp mae e 'n cael ofn ## mae tylluan [/] tylluan yn dod allan o 'r
 \tree(f) is.3SG he PROG get fear is.3SG owl owl PROG come out from the
 tree. Ah@fp he gets a fright. An owl [/] owl comes out of the

goeden ## mae &ty tylluan yn cysgu yn y goeden ac mae 'r bachgen yn
 \tree(f) is.3SG owl PROG sleep in the \tree(f) and is.3SG the boy PROG
 tree. An &ty owl sleeps in the tree and the boy

syrthio yn ôl i-lawr ## ac mae 'r gwenyn yn mynd ar y ci [/] ar ôl y ci ac
 fall in track down and is.3SG the bees PROG go on the dog on track the dog and
 falls back down. And the bees are going on the dog [/] after the dog and

mae 'r ci yn rhedeg [/] yn rhedeg yn gyflym iawn ## nawr te mae 'r dylluan
is.3SG the dog PROG run PROG run ADV \fast very now then is.3SG the \owl(f)
the dog is running [/] running very fast. Now then the owl

nesa # [/] mae 'r dylluan yn hedfan uwchben y bachgen ## mae e 'n dringo #
next is.3SG the \owl(f) PROG fly above the boy is.3SG he PROG climb
next, [/] the owl is flying over the boy. He climbs,

uh@fp graig [/] dringo 'r graig ## pam mae fe 'n dringo 'r graig? mae e 'n
-- \rock climb the \rock(f) why is.3SG he PROG climb the \rock(f) is.3SG he PROG
uh@fp a rock [/] climbs the rock. What does he climb the rock? He's

gweiddi # ar bwy mae fe 'n gweiddi? oh@fp # <beth yw hwn?> # <beth yw e?> carw
shout on \who is.3SG he PROG shout what COP this what COP he stag
shouting, for whom is he shouting? Oh@fp, <what is this?>, <what is it?> a stag

<dw i 'n meddwl> # carw # ie # carw # ac mae 'r bachgen ar gefn y carw ac
is.1SG I PROG think stag yes stag and is.3SG the boy on \back the stag and
<I think>, a stag, yes, a stag, and the boy is on the stag's back and

mae 'r carw yn rhedeg oh@fp [/] mae 'r carw yn rhedeg at y glogwyn [/] clogwyn
is.3SG the stag PROG run is.3SG the stag PROG run to the \cliff(m) cliff
the stag is running oh@fp [/] the stag is running to the cliff [/] cliff.

oh@fp beth sy mynd yn digwydd i 'r bachgen? ac mae 'r ci yn mynd
-- what is.REL go PROG happen to the boy and is.3SG the dog PROG go
Oh@fp what's going [to] happen to the boy? And the dog goes

o'r-flaen y carw ## oh@fp # mae 'r bachgen yn syrthio a 'r ci dros y clogwyn
before the stag is.3SG the boy PROG fall and the dog over the cliff
in front of the stag. Oh@fp, the boy falls and the dog over the cliff

i-lawr mae 'r carw wedi stopio # mae e 'di stopio ar ymyl y clogwyn ac
down is.3SG the stag PRF stop is.3SG he PROG stop on edge the cliff and
down the stag has stopped, he has stopped at the edge of the cliff and

mae 'r bachgen yn syrthio i mewn i afon diolch-byth am hynny dyw
is.3SG the boy PROG fall to in to river thank-goodness for that is.3SG.NEG
the boy falls into a river thank goodness for that he doesn't

e ddim yn syrthio i 'r ddaear a dyw e ddim wedi cael dolur wedi syrthio
he NEG PROG fall to the \earth(f) and is.3SG.NEG he NEG PRF get hurt PRF fall
fall to the ground and he hasn't gotten hurt having fallen

i mewn i 'r dŵr ac mae e 'n iawn mae e 'n gwennu dw i 'n meddwl
to in to the water and is.3SG he PRED okay is.3SG he PROG smile is.1SG I PROG think
into the water and he's okay he is smiling I think

ac mae 'r ci ar ei ysgwydd e ## oh@fp mae fe nawr yn # nofio ac yn cyrraedd
 and is.3SG the dog on his shoulder he is.3SG he now PROG swim and PROG arrive
 and the dog is on his shoulder. Oh@fp he is now, swimming and arrives

ar ochr ac mae coeden # coeden wag ar ochr yr afon # mae e 'n dringo dros
 on side and is.3SG tree tree(f) \empty on side the river is.3SG he PROG climb over
 at the side and there's a tree, an empty tree at the side of the river, he climbs over

[/] dros y goeden ## a nesa wel 'drych-wch beth sy wedi digwydd ## mae e
 over the \tree(f) and next well look-2PL.IMPV what is.REL PRF happen is.3SG he
 [/] over the tree. And next well look what's happened. He

wedi darganfod y broga [/] y broga [/] y broga bach # oh@fp mae brogaod eraill hefyd
 PRF discover the frog the frog the frog little is.3SG frogs other also
 has discovered the frog [/] the frog [/] the little frog, oh@fp there are other frogs also

ar y goeden ac mae 'r bachgen yn mynd â 'r broga bach gydag e ac yn
 on the \tree(f) and is.3SG the boy PROG go with the frog little with he and PROG
 on the tree and the boy takes the littlr frog with him and

codi llaw ac yn dweud hwyl fawr hwyl fawr wrth y brogaod eraill ## hwyl fawr
 raise hand and PROG say bye \big bye \big to the frogs other bye \big
 raises a hand and says 'goodbye goodbye' to the other frogs. 'Goodbye

i chi hefyd
 to you also
 to you too.'

mae 'na hogyn bach yn byw mewn tŷ ## a mae gyn-no fo gi bach ac enw 'r
is.3SG there boy little PROG live in house and is.3SG with-him he \dog little and name the
There's a little boy living in a house. And he has a little dog and the

hogyn bach ydy <Ioan> # ac enw 'r ci bach ydy <Mott> ## ac un noson # mi oedd
boy little COP and name the dog little COP and one night AFF was.3SG
name of the little boy is <Ioan>, and the name of the little dog is <Mott>. And one night,

<Ioan> a <Mott> yn y llofft ## ac oedd-en nhw eisiau edrych ar rywbeth oedd <Ioan>
and in the bedroom and was-3PL they want look on \something was.3SG
<Ioan> and <Mott> were in the bedroom. And they wanted to look at something <Ioan>

wedi xxx llyffant ## a wedi rhoi llyffant mewn pot jam mawr ac oedd y ddau wrth
PRF frog and PRF put frog in pot jam big and was.3SG the \two(m) at
had xxx a frog. And put a frog in a big jam pot and the two were

eu bodd efo llyffant a gyda nhw trio meddwl be' dyn ni mynd i neud efo? be'
their pleasure with frog and with they try think what is.1PL we go to do with what
delighted with a frog and with them trying to think 'what are we going to do with [him]? What

dyn ni mynd i neud efo llyffant ## um@fp be' dyn ni 'n mynd i neud efo
is.1PL we go to do with frog what is.1PL we PROG go to do with
are we going to do with a frog? Um@fp what are we going to do with

llyffant bach 'ma? mae 'n biti bod o 'n cael ei gadw mewn pot jam <on'dydy>
frog little here is.3SG PRED \pity is.COMP he PROG get his \keep in pot jam isn't.it
this little frog? It's a pity that he's kept in a jam pot <isn't it?>

dyn ni mynd i fod yn ffrind i 'r llyffant bach 'ma ## mae hi 'n dywyll heno
is.1PL we go to \be.INF PRED friend to the frog little here is.3SG she PRED \dark tonight
We are going to be a friend to this little frog. It's dark tonight

<on'dydy> ## mae mam 'm eisiau mi fynd allan â fe felly ni 'n weld # be' dyn
isn't.it is.3SG mother my want I go out with he so we PROG \see what is.1PL
<isn't it?> Mom wants me to take him out so we [will] see, what are

ni mynd i neud ## rhaid i mi fynd i gysgu 'm xxx nawn ni feddwl am y peth
we go to do necessity to I \go to \sleep for do.1PL.FUT we \think about the thing
we going to do. I have to go to sleep for xxx we will think about the thing

yn y bore felly mi aeth <Ioan> i # mewn i 'r gwely a cyn pan dim oedd o
in the morning so AFF went.3SG to in to the bed and before when NEG was.3SG he
in the morning' so <Ioan> went, into bed and before long he was

'n cysgu 'n sownd ac ar waelod y gwely mi oedd <Mott> yn cysgu hefyd
PROG sleep ADV sound and on \bottom the bed AFF was.3SG PROG sleep also
sleeping soundly and at the bottom of the bed <Mott> was sleeping too

ah@fp ond # beth oedd y llyffant yn neud? <mmm> oedd o 'n meddwl reit
but what was.3SG the frog PROG do was.3SG he PROG think right
ah@fp but, what was the frog doing? 'Mmm' he thought 'right

dyma nghyfle i ddianc # w i 'n mynd i ddiengyd a tra bod nhw 'n cysgu #
here's \chance to \escape is.1SG I PROG go to \escape and while is.COMP they PROG sleep
here's my chance to escape, I'm going to escape and while they are sleeping,'

felly allan â fo o 'r pot jam ## yn y bore # mi oedd <Ioan> a <Mott> yn mynd
so out with he from the pot jam in the morning AFF was.3SG and PROG go
so out with him from the jam pot. In the morning, <Ioan> and <Mott> were going

i edrych am y llyffant yn y pot jam yn syth ## ond do' na golwg o-hono fo
to look for the frog in the pot jam ADV immediate but is.3SG.NEG no look of-him he
to look for the frog in the jam pot immediately. But there was no sign of him

wedi diflannu rywle ## oh@fp mae llyffant wedi mynd feddan nhw lle mae o 'di
PRF disappear \somewhere is.3SG frog PRF go \said.3PL they where is.3SG he PRF
disappeared somewhere. Oh@fp 'frog has gone' they said 'where has he

mynd ## felly # yn sydyn # mi wisgodd <Ioan> a'-dano ac yna dechrau chwilio am y
go so ADV sudden AFF \dressed.3SG about-him and then begin search for the
gone.' So, quickly, <Ioan> dressed and then begin to search for the

llyffant ym bob-man lle wyt ti # a mi oedd <Mott> rhoi ei
frog in \every-place where is.2SG you and AFF was.3SG put his
frog everywhere 'where are you.' And <Mott> put his

ben i mewn yn y pot jam ond medd <Ioan> oedd
\head to in in the pot jam but said.3SG was.3SG
head in the jam pot but <Ioan> said 'he was

o 'di mynd yn sownd yn y pot jam <www www www wwf> mae 'n
he PRF go PRED stuck in the pot jam is.3SG PRED
stuck in the jam pot' 'ww www www wwf' '[he]'s

sownd yn y pot mae 'n sownd a oedd o methu glur i cael ei ben allan #
stuck in the pot is.3SG PRED stuck and was.3SG he fail \clear to get his \head out
stuck in the pot [he]'s stuck' and he clean fails to get his head out,

a roedd rhaid efo xxx pot jam am ei ben # wedyn agor-on nhw 'r ffenest a
and was.3SG necessity with pot jam about his \head then opened-3PL they the window and
and [he] had to xxx jam pot around his head, then they opened the window and

ddau o-honon nhw 'n trio gweiddi ar y llyffant a oedd <Ioan> yn gweiddi lyffant
\two of-them they PROG try shout on the frog and was.3SG PROG shout \frog
[the] two of them try to shout for the frog and <Ioan> was shouting 'little frog

bach ble wyt ti ble yt ti 'di mynd # a wedyn roedd y # <Mott> efo pot
little where is.2SG you where is.2SG you PRF go and then was.3SG the with pot
where are you where have you gone,' and then the, <Mott> with a jam pot was

jam yn methu cyfarth iawn <w w> fel 'na fo 'n gallu mynd # ond y xxx mi syrthi-odd
 jam PROG fail bark okey like that he PROG able go but the AFF fell-3SG
 failing to bark well '<w w>' like that he can go. But the xxx <Mott> fell

<Mott> allan o 'r ffenest ac # yn ffodus i-ddo fe wrth cwrs mi oedd y pot
 out from the window and ADV fortunate for-him he by course AFF was.3SG the pot
 out of the window and, fortunately for him of course the jam pot

jam wedi malu a 'di torri yn dipiau oedd o yn hapus iawn bod yr hen bot
 jam PRF smash and PRF break in \fragments was.3SG he PRED happy very is.COMP the old \pot
 had smashed and broken into pieces he was very happy that the old jam pot

jam <now> wedi malu ond # mi gafodd o xxx <Ioan> ## ti 'n iawn <on'dwyt-ti>
 jam PRF smash but AFF \got.3SG he you PRED okey aren't.you
 had now smashed but, he got xxx <Ioan>. 'You're ok <aren't you>

<Mott> ti 'di brifo? naddo na xxx llyfu boch [/] llyfu boch <Ioan> ## a 'n dweud
 you PRF hurt no no lick cheek lick cheek and PROG say
 <Mott> you hurt? no' no xxx licking cheek [/] licking <Ioan>'s cheek. And [he] says

<Ioan> yn flin lle mae 'r llyffant wedi mynd? meddai fo ## 'dyn allan â nhw i
 ADV \angry where is.3SG the frog PRF go said.3SG fe then out with they to
 <Ioan> angrily 'where has the frog gone?' he said. Then out with them to

chwilio am-dano fo hyd at i 'r cae a oedd o-gwmpas y tŷ a mi oedd <Ioan>
 search for-him he length to to the field REL was.3SG around the house and AFF was.3SG
 search for him up to the field which was around the house and <Ioan>

wedi gwisgo sgidiau mawr uchel oedd yn lot yn rhy fawr i-ddo fo dw i ddim
 PRF wear shoes big high was.3SG ADV lot PRED too \big for-him he is.1SG I NEG
 had put on high big shoes that were a lot too big for him I'm not

yn siwr iawn sgidiau 'i dad oedd-en nhw <tybe'> # ond beth-bynnag # oedd
 PRED sure very shoes his \father was-3PL they I.wonder but what-ever was.3SG
 very sure they were his father's shoes <I wonder>, but whatever, he was

o 'n gwisgo sgidiau mawr ag uchel 'ma ## ac yn sydyn # beth aeth heibio
 he PROG wear shoes big and high here and ADV sudden what went.3SG past
 wearing these big and high shoes. And suddenly, what went past

ond <hive> o wenyn ac uh@fp oedd <Mott> y ci yn snwyrrio <mm> wenyn # <mmm> ##
 but of \bees and was.3SG the dog PROG sniff \bees
 but a <hive> of bees and uh@fp <Mott> the dog was sniffing '<mm> bees, <mmm>.'

lle mae 'r gwenyn yna 'n mynd ond oedd <Ioan> yn meddwl <oooow>
 where is.3SG the bees there PROG go but was.3SG PROG think
 where are those bees going but <Ioan> was thinking '<oooow>

gwenyn dw i ddim eisiau nhw 'n dod yn agos dw i ddim eisiau cael 'mhigo ##
 bees is.1SG I NEG want they PROG come PRED near is.1SG I NEG want get \sting
 bees I don't want them to come close I don't want to get stung.'

wedyn dyn ni # yn symud lawr i 'r coed 'ma mae 'na rywbeth lawr yn y
 then is.1SG we PROG move down to the trees here is.3SG there \something down in the
 Then we, move down to these trees there's something down in the

coed? # dyna lle mae 'r gwenyn yn dod ## cwch gwenyn mae 'na cwch
 trees there's where is.3SG the bees PROG come hive bees is.3SG there hive
 trees? that's where the bees are coming. Beehive there's a beehive,

gwenyn # yn y coed # maen nhw 'n dod allan o 'r cwch gwenyn dyna lle
 bees in the trees is.3SG they PROG come out from the hive bees there's where
 in the trees, they are coming out of the beehive that's where

maen nhw 'n byw ## oh@fp rhaid i ni wyllo 'na dydyn ni ddim yn cael
 is.3PL they PROG live necessity for we \watch that is.1PL.NEG we NEG PROG get
 they live. Oh@fp we have to watch that we aren't getting

ein pigo ## ond oedd <Mott> yn # benderfynnu bod o eisiau mynd at y cwch gwenyn
 our sting but was.3SG PROG \decide is.COMP he want go to the hive bees
 stung. But <Mott> decided that he wanted to go to the beehive.

ac oedd am cyfarth ac yn cyfarth ar y gwenyn oedd-en dod allan o 'r
 and was.3SG want bark and PROG bark at the bees was-3PL come out from the
 And [he] wanted to bark and barking at the bees [they] were coming out of the

cwch gwenyn ac yna dwll wrth ymyl ac oedd <Ioan> yn meddwl tybe' beth sy
 hive bees and there \hole at edge and was.3SG PROG think I.wonder what is.REL
 beehive and there was a hole nearby and <Ioan> thought 'I wonder what's

'n yn y twll ac yna mi 'di edrych i weld am y llyffant yn y twll # ond beth
 PRED in the hole and there AFF PRF look to \see about the frog in the hole but what
 in the hole' and then look[ed] to see about the frog in the hole, but what

dod allan o 'r twll ond ydyw anifail bach # w i 'm yn siwr iawn be' oedd
 come out from the hole but is.3SG.Q animal little is.1SG I NEG PRED sure very what was.3SG
 comes out of the hole but is it a little animal, I'm not very sure what

yr anifail bach yma # fel llygoden neu rywbeth # dw i 'm yn siwr beth oedd hi #
 the animal little here like mouse or \something is.1SG I NEG PRED sure what was.3SG she
 what this little animal was, like a mouse or something, I'm not sure what it was,

neu gwenci o bosib ## ond doedd <Mott> yn dal i gyfarth ar y gwenyn yn y cwch
 or weasel from \possible but was.3SG.NEG PROG continue to \bark at the bees in the hive
 or possibly a weasel. But <Mott> wasn't still barking at the bees in the beehive

gwenyn a roedd <Ioan> wedi cael tipyn-bach o fraw <â dweud y gwir> yn gweld
 bees and was.3SG PRF get little-bit o \fright with say the true PROG see
 and <Ioan> had got a little bit of a scare <to tell the truth> seeing

yr anifail # llygoden neu gwenci ## wedyn # mi benderfynnodd <Ioan> bod o mynd i
 the animal mouse or weasel then AFF \decided-3SG is.COMP he go to
 the animal, a mouse or weasel. Then, <Ioan> decided that he's going to

ddringo 'r goeden a sbio beth oedd yn y twll 'na oedd yn y goeden yma 'na ##
 \climb the \tree(f) and look what was.3SG in the hole there was.3SG in the \tree(f) here there
 climb the tree and look what was in that hole that was in this tree there.

ac oedd <Mott> yn dal i fod yn cyfarth ond mi syrthiodd y cwch gwenyn
 and was.3SG PROG continue to \be.INF PROG bark but AFF fell-3SG the hive bees
 And <Mott> was still barking but the beehive fell

i-lawr # ac uh@fp oedd 'i ar y goeden # y gwenyn i-gyd yn dod allan yn un haid
 down and was.3SG she on the \tree(f) the bees all PROG come out in one swarm
 down, and uh@fo it was on the tree, all the bees come out in one swarm

a 'r hen wenci bach yn sbio 'r y cyfan ## ond pwy oedd allan o 'r twll yn
 and the old \weasel little PROG watch the the whole but who was.3SG out of the hole in
 and the old little weasel looking at the whole [thing]. But who was out of the hole in

y goeden on' tylluan # a mae hithau yn dechrau galw <twyt twww> meddai 'r
 the \tree(f) but owl and is.3SG she PROG begin call said.3SG the
 the tree but an owl, and she begins to call '<twyt twww>' said the

dylluan # be' ti 'n neud yma # oh@fp wrth cwrs roedd <Ioan> wedi cael braw mawr
 \owl(f) what you PROG do here by course was.3SG PRF get fright big
 owl, 'what [are] you doing here,' oh@fp of course <Ioan> had gotten a big fright

yn gweld y dylluan yn dod yn dweud <tw twywww> fel 'na ## ac wedyn # mi
 PROG see the \owl(f) PROG come PROG say like that and then AFF
 seeing the owl coming [and] saying '<tw twywww>' like that. And then,

oedd <Mott> hefyd wedi cael braw achos mi oedd y gwenyn wedi dechrau dod ar ei
 was.3SG also PRF get fright because AFF was.3SG the bees PRF begin come on his
 <Mott> had also gotten a fright because the bees had begun to come after

ôl o-achos i-ddo wedi cyfarth gymaint ers bod yr cwch gwenyn wedi syrthio ar y
 track because to-him PRF bark \so.much since is.COMP the hive bees PRF fall on the
 him because he had barked so much since the beehive had fallen on

llawr roedd y ddau mewn dipyn o drybini ## ac achos nad oedd rhedog digon
 ground was.3SG the \two(m) in \bit of \trouble and because NEG was.3SG run enough
 on the ground the two were in a bit of trouble. And because [he] didn't run enough

mi dechreuodd y dylluan dod allan a mynd ar ôl <Ioan> bach oedd <Ioan> yn
 AFF began-3SG the \owl(f) come out and go on track little was.3SG PROG
 the owl began to come out and go after little <Ioan> <Ioan> was

chwilio am rywle i guddio # ond # yn lle gweld rywle i guddio mi
 search for \somewhere to \hide but in where see \somewhere to \hide AFF
 looking for somewhere to hide, but, instead of seeing somewhere to hide

ddringo i-fyny ar ben ryw # um@fp garreg fawr a dechrau galw <help> helpwch
 \climb up on \head \some \rock(f) \big and begin call help-2PL.IMPV
 [he] climb[s] up on top of some, um@fp big rock and starts to call '<help> <help

rywun helpu mi ac wedyn oedd <Mott> yma 'na oedd yn xxx i mynd i 'u
 \someone help me and then was.3SG here there was.3SG PROG to go to his
 someone help me' and then <Mott> was here [he] was xxx to go to xxx him

xxx ac oedd o wedi cael cwplen o fraw # ond oedd y dylluan yn y cyfamser
 and was.3SG he PRF get couple of \fright but was.3SG the \owl(f) in the meantime
 and he had gotten a couple of frights, but the owl in the meantime

wedi mynd yn ôl i 'r goeden ## a beth sy 'di digwydd rwan # wel xxx yn lle
 PRF go in track to the \tree(f) and what is.REL PRF happen now well in place
 had gone back to the tree. And what has happened now, well xxx instead

bod yn pwyso ar ddarn o # frigen # tu ôl i 'r garreg mi oedd <Ioan> wedi pwyso
 is.INF PROG lean on \piece of \branch side track to the \rock(f) AFF was.3SG PRF lean
 of leaning on a piece of, a branch, behind the rock <Ioan> had leaned

ar gefn carw # ac oedd o wedi landio reit yng nghanol cairn y carw a drwyn y
 on \back stag and was.3SG he PRF land right in\ \center horns the stag and \nose the
 on [the] stag's back, and he had landed right in the middle of the horns of the stag and nose of the

carw # wel wir # lle ydw i meddai fo # lle ydw i ar y carw yn dechrau
 stag well \true where is.1SG I said.3SG he where is.1SG I on the stag PROG begin
 stag, well indeed, 'where am I' he said, 'where am I on the stag' beginning

symud ac yn dechrau rhedeg a <Ioan> bach yn sownd fan 'na rhwng cyrn y
 moce and PRG begin run and little PRED stuck place there between horns the
 to move and beginning to run and little <Ioan> stuck there between the horns of the

carw a <Mott> yn xxx ac yn cyfarth ond o 'n mynd i fynd dros dibyn
 stag and PROG and PROG bark but was.3SG PROG go to \go over precipice
 stag and <Mott> xxx and barking but [it] was going to go over precipice

o bryn fyddai yn diwedd ar-non nhw fyddai diwedd nhw wedi dod ## ond
 of hill is.3SG.SBJV PRED end on-them they \is.3SG.SBJV end they PRF come but
 of a hill [it] would be an end to them their end would have come. But

be' ddigwydd-odd # mi [/] # mi xxx-odd y carw jyst ar ymyl y xxx dibyn yma #
 what \happened-3SG AFF AFF -3SG.PAST the stag just on edge the precipice here
 what happened, [/] -ed the stag just at the edge of the xxx precipice here,

ac wrth cwrs mi cafodd <Ioan> ei hyrddio oddi ar [/] oddi ar-no fo a wedyn yn
 and by course AFF got.3SG his hurl from on from on-him he and then in
 and of course <Ioan> was hurled from [/] from it and then

sgil hynny oedd <Mott> y ci hefyd i-lawr i 'r lle a xxx ond doedd o ddim mor
back that was.3SG the dog also down to the place REL but was.3SG.NEG he NEG so
after that <Mott> the ci was also down to the place xxx but it wasn't so

bell i-lawr diolch-byth gobeithio byddan nhw 'n iawn # ynde # oh@fp brenyn mawr #
\far down thank-goodness hopefully is.3PL.FUT they PRED okey isn't.it \log big
far down thank goodness hopefully they'll be okey, won't they, oh@fp a big log,

mae 'na dŵr yn y gwaelod yna maen nhw wedi mynd yn syth i mewn i 'r
is.3SG there water in the bottom there is.3PL they PRF go ADV immediate to in to the
there's water in the bottom there they have gone straight into the

dŵr <splash> mawr i mewn i 'r dŵr y ddau o-honyn nhw ond # <uh-oh> doedd
water big to in to the water the \two(m) of-them they but was.3SG.NEG
water a big <splash> into the water the two of them but, <uh-oh> <Mott>

<Mott> ddim yn licio dŵr mae-flin-'da-fi <Mott> # ar ysgwydd <Ioan> # a <Ioan> jyst
NEG PROG like water sorry on shoulder and just
didn't like water sorry <Mott>, on <Ioan>'s shoulder, and <Ioan> just

yn eistedd yn y dŵr doedd y dŵr ddim yn ddwfn iawn <diolch i 'r drefn>
PROG sit in the water was.3SG.NEG the water NEG PRED \deep very thanks to the \order(f)
sitting in the water the water wasn't very deep <thank goodness>,

felly oedd y ddau yn iawn yr xxx bod nhw 'di syrthio oddi ar glogwyn
so was.3SG the \two(m) PRED okey the is.COMP they PRF fall from on \cliff
So the two were okey xxx they had fallen from [the] cliff

i-lawr i 'r [/] i 'r gwaelod 'na ## be' maen nhw 'n weld nesa maen nhw 'n gweld
down to the to the bottom there what is.3PL they PROG \see next is.3PL they PROG see
down to the [/] to the bottom there. What do they see next they see

yw hen foncyff # [/] foncyff a mae ar boncyff 'ma yn # golwg yn wag 'ma a
COP old \trunk \trunk and is.3SG ar trunk here PRED look PRED \empty here and
is an old trunk, [/] trunk and this trunk, looks empty here and

mor hen â hynny # a mae # <Mott> erbyn hyn wedi dod oddi ar 'sgwyddau <Ioan> ac
so old as that and is.3SG by this PRF come from on shoulders and
really old, and, <Mott> now has come off <Ioan>'s shoulders and

yn nofio yn y dŵr a mae <Ioan> yn ddweud dewch i ni weld beth sydd
PROG swim in the water and is.3SG PROG \say come.2PL.IMPV to we \see what is.REL
is swimming in the water and <Ioan> says 'come [let]'s see what is

yma yn hen xxx meddai fo ## a mae ddau ohonyn nhw 'n meddwl mynd dros y
here in old said.3SG he and is.3SG \two(m) of-them they PROG think go over the
here in this old [trunk]' he said. And [the] two of them think to go over the

boncyff a sbio beth sy ar ochr arall ## a beth sydd yno # ond dau lyffant un
trunk and look what is.REL on side other and what is.REL there but two \frog one
trunk and look what is on the other side. And what's there, but two frogs one

tipyn-bach yn fwy a llal tipyn-bach yn llai # dyna beth sydd fan 'na # a
little-bit PRED \bigger and other little-bit PRED smaller that's what is.REL place there and
a little bit bigger and the other a little bit smaller, that's what's there, and

wyddoch chi be' # sy 'na hefyd ond teulu o lyffantod bach faint o-honyn
\know-2PL you what is.REL there also but family of \frogs little how.many of-them
you know what, there's also a family of little frogs how many of

nhw # un dau tri bedwar pump chwe saith llyffant bach yna ## um@fp wel # dyna syndod
they one two three \four five six seven frog little there well there's surprise
them, one two three four five six seven little frogs there. Um@fp well, that's a surprise

<ynde> teulu o lyffantod yna ## felly dyna lle oedd y llyffant wedi dianc
isn't.it family of \frogs there so that's where was.3SG the frog PRF escape
<isn't it> a family of frogs there. So that's where the frog had escaped

doedd dim rhyfel bod o 'n benderfynu i cael dianc nac oedd oedd o
was.3SG.NEG NEG wonder is.COMP he PROG \decide to get escape NEG was.3SG was.3SG he
there was no wonder that he decided to get escape was there he

eisiau mynd 'n ôl at ei deulu ## ond mi # oedd <Ioan> wedi gofyn beth set ti
want go in track to his \family but AFF was.3SG PRF ask what is.2SG.SBJV you
wanted to go back to his family. But, <Ioan> had asked 'what would you

'n licio dod i aros efo <Mott> a fi am dipyn-bach # i 'r llyffant bach oedd o
PROG like come to stay with and I for \little-bit to the \frog little was.3SG he
like to come to stay with <Mott> and me for a little bit,' to the little frog who

wedi cael o'r-blaen am i-ddo fo oh@fp iawn 'te # na i ddod ## a xxx ddod
PRF get in-front about to-him he okey then do.1SG.FUT I \come and \come
had got before him oh@fp 'okey then, I'll come.' And xxx 'come

yn ôl wedyn at yn rheulu wrth gwrs # ti 'di aros efo ni am dipynbach beth-bynnag
in track then to my \family by course you PRF stay with we for \little-bit what-ever
back then to my family of course, you've stayed with us for a little bit whatever'

<ugh ugh ugh> meddai broga bach fel 'na achos mae llais tipyn-bach yn rhyfedd
-- said.3SG frog little like that because is.3SG voice little-bit PRED odd
'<ugh ugh ugh>' siad little frog like that because [the] [/] frog's voice is a little bit odd

gan[/] gan lyffant <ugh ugh ugh ugh> fel 'na <igh ugh ugh ugh ugh> meddai fo ac wedyn
with with \frog like that said.3SG he and then
'<ugh ugh ugh ugh>' like that '<ig ugh ugh ugh ugh>' he said and then

ffwrdd â nhw 'n ôl i aros efo [/] efo 'i-gilydd ## <Mott> a <Ioan> a llyffant bach
away with they in track to stay with with each-other and and frog little
away with them back to stay with [/] with each other. <Mott> and <Ioan> and a little frog.

oedd y bachgen bach yn eistedd ar waelod ei wely fe yn siarad gyda ci ## ac
was.3SG the boy little PROG sit on \bottom his \bed he PROG speak with dog and
The little boy was sitting at the bottom of his bed speaking with a dog. And

yn y jar # ar-bwys y gwely roedd broga mawr gwyrdd ## aeth y bachgen
in the jar near the bed was.3SG frog big green went.3SG the boy
in the jar, near the bed there was a big green frog. The boy went

i 'r gwely # aeth y ci i 'r gwely hefyd # ac o-'n nhw 'n cysgu 'n drwm
to the bed went.3SG the dog to the bed also and was-3PL they PROG sleep ADV \heavy
to bed, the dog went to bed also, and they slept heavily,

yn ystod y nos # sleifi-odd y broga gwyrdd yn dawel bach allan o 'r jar ##
in course the night slinked-3SG the frog green ADV \quiet little out from the jar
during the night, the green frog slinked quietly out of the jar.

doedd neb yn gwybod ## yn y bore # â 'r haul yn tywynnu drwy 'r
was.3SG.NEG no.one PROG know in the morning with the sun PROG shine through the
Nobody knew. In the morning, with the sun shining through the

ffenest # deffr-odd y bachgen # a deffr-odd y ci ## edrych-on nhw ar waelod y
window woke-3SG the boy and woke-3SG the dog looked-3SG they on \bottom the
window, the boy woke, and the dog woke. They looked at the bottom of the

gwely # a gweld bod y broga gwyrdd wedi diflannu ## ble oedd e? ## gwisg-odd
bed and see is.COMP the frog green PRF disappear where was.3SG he dressed-3SG
bed, and see that the green frog has disappeared. Where is is? [He] dressed

yn gyflym # ac edrych-odd e yn yr esgidiau # edrych-odd e yn y jar # o-dan y gwely
ADV \fast and looked-3SG he in the shoes looked-3SG he in the jar under the bed
quickly, and he looked in the shoes, he looked in the jar, under the bed,

on' doedd dim golwg o 'r broga gwyrdd yn unman ## edrych-on nhw mas drwy
but was.3SG.NEG NEG sight of the frog green in anywhere looked-3PL they out through
but there was no sign of the green frog anywhere. The looked out through

'r ffenest # ac roedd y ci ychydig bach yn drist erbyn hyn # achos aeth ei
the window and was.3SG the dog little.bit little PRED \sad by this because went.3SG his
the window, and the dog was a little bit sad now, because his head went

ben yn <stuck> yn y jar ## cwmp-odd y ci druan mas drwy 'r ffenest ## ond
\head PRED in the jar fell-3SG the dog(m) \wretched out through the window but
stuck in the jar. The poor dog jumped out through the window. But

drwy lwc # bwr-odd ei ben ar borfa a torr-odd y jar ## erbyn hyn roedd
through luck struck-3SG his \head on \grass and broke-3SG the jar by this was.3SG
by chance, [he] struck his head on the grass and broke the jar. Now

bachgen yn grac # achos doedd e ddim yn hoffi y ci yn llyfu ei wyneb e ##
 boy PRED \angry because was.3SG.NEG he NEG PROG like the dog PROG lick his face he
 [the] boy was angry, because he didn't like the dog licking his face.

bant â nhw # dyma nhw 'n mynd i 'r ardd i chwilio am y broga gwyrdd ##
 away with they here's they PROG go to the \garden(f) to search for the frog green
 Away with them, here's them going to the garden to search for the green frog.

pwyl wel-on nhw? ond &wynir wenynen â 'i theulu mawr hi ## ro-'n nhw 'n
 who saw-3PL they but \bee with her \family big she was-3PL they PROG
 Who did they see? But &wynir a bee with her big family. They

byw mewn cwch bach yn hongian o 'r goeden ## edrych-odd y bachgen yn nhwll #
 live in hive little PROG hang from the \tree(f) looked-3SG the boy in \hole
 lived in a little hive hanging from the tree. The boy looked in a hole,

uh@fp llygoden ffyrnig ac edrych-odd y ci yn nghwch y gwenyn ## oedd y
 mouse fierce and looked-3SG the dog in \hive the bees was.3SG the
 uh@fp a fierce mouse and the dog looked in the beehive. Was the

broga yno? nac oedd ## cwmp-odd y cwch gwenyn lawr o 'r goeden ## a
 frog there NEG was.3SG fell-3SG the hive bees down from the \tree(f) and
 frog there? No. The beehive fell down from the tree. And

penderfynn-odd y gwenyn dod mas i ddweud helo ## ond doedd y gwenyn ddim
 decided-3SG the bees come out to \say hello but was.3SG.NEG the bees NEG
 the bees decided to come out to say 'hello'. But the bees weren't

yn hapus o-gwbl # ro-'n nhw 'n canu pwy sy wedi taflu 'n tŷ ni ar y
 PRED happy at-all was-3PL they PROG sing who is.REL PRF throw our house we on the
 happy at all, they were yelling 'who has thrown our house on the

llawr? ## gewch chi dalu am hyn ## a dechreu-on nhw suo 'n wyllt ## daeth
 ground get.2PL.FUT you \pay for that and began-3PL they buzz ADV \wild came.3SG
 ground? You'll pay for that.' And they began to buzz wildly. The

y gwddihw mas i floeddi ar y bachgen bach ## a dyma nhw 'n rhedeg ar ôl y ci ##
 the owl out to \scream on the boy little and here's they PROG run on track the dog
 owl came out to scream at the little boy. And here they are running after the dog.

nes i fod yn rhedeg am ei fywyd allan o 'r goedwig ## doedd y gwddihw
 until to \is.INF PROG run for his \life out from the \forest(f) was.3SG.NEG the owl
 Until he was running for his life out of the forest. The owl didn't

ddim eisiau gweld y bachgen chwaith # ar ôl cael ei ddeffro yn nghanol y dydd ## broga
 NEG want see the boy either on track get his \wake in \center the day frog
 want to see the boy either, after being woken up in the middle of the day. 'Frog,

ble wyt ti froga? galwodd y bachgen ## neidi-odd e ar ben yr hydd # ond
 where is.2SG you \frog called-3SG the boy jumped-3SG he on \head the stag but
 where are you frog?' called the boy. He jumped on top of the stag, but

doedd yr hydd ddim yn hapus chwaith ## a doedd e ddim yn rhy
 was.3SG.NEG the stag NEG PRED happy either and was.3SG.NEG he NEG PRED too
 the stag wasn't happy either. And it wasn't too

gyfforddus iawn ## aeth yr hydd ar ochr y clogwyn a thaflu 'r bachgen bach
 \comfortable very went.3SG the stag on side the cliff and \throw the boy little
 very comfortable. The stag went beside the cliff and throws the little boy

a 'r ci mewn i 'r llyn ### <splash> # pwy wels-on nhw yn y llyn # ond ## neb ## neb
 and the dog in to the lake who \saw-3PL they in the lake but no.one no.one
 and the dog into the lake. <Splash>, who did they see in the lake, but. no one. no one

eto # <huh> # <shh> dwed-odd y bachgen ## roedd e 'n meddwl bod rhywun tu
 again said-3SG the boy was.3SG he PROG think is.COMP someone side
 again, <huh>, '<shh>' the boy said. He thought that there was someone

ôl y boncyff ## pwy oedd yn cuddio tu ôl y boncyff ond dau froga hapus hapus
 track the trunk who was.3SG PROG hide side track the trunk but two \frog happy happy
 behind the trunk. Who was hiding behind the trunk but two happy happy frogs.

roedd y bachgen a 'r ci wrth eu bodd i weld teulu o brogaod hapus ## a
 was.3SG the boy and the dog at their pleasure to \see family of frogs happy and
 The boy and the dog were delighted to see a family of happy frogs. And

dyma nhw 'n sylweddoli bod nhw ddim yn gallu mynd â 'r broga adre
 here's they PROG realize is.COMP they NEG PROG able go with the frog homeward
 here they are realizing that they cannot take the frog home

achos doedd e ddim yn deg # o-'n nhw eisiau aros gyda 'i teulu ## a
 because was.3SG.NEG he NEG PRED \fair was-3PL they want stay with his family and
 because it wasn't fair, they wanted to stay with his family. And

dyna ddiwedd y stori pawb yn hapus
 there's \end the story everybody PRED happy
 that's the end of the story everybody happy.

un tro # roedd 'na fachgen o 'r enw <Iestyn> ## ac roedd gan-ddo gi # <Mott> #
 one time was.3SG there \boy of the name and was.3SG with-him \dog
 Once, there was a boy of the name <Iestyn>. And he had a dog, <Mott>,

a broga a yn byw mewn pot ## un noson # naeth y broga sleifio allan o 'r pot
 and frog REL PROG live in pot one night did.3SG the frog slither out from the pot
 and a frog who lived in a pot. One night, the frog slithered out of the pot

a dianc ## pan dihun-odd <Iestyn> yn y bore # doedd dim xxx o 'r
 and escape when woke-3SG in the morning was.3SG.NEG NEG x of the
 and escaped. When <Iestyn> woke up in the morning, there was no xsx of the

broga ## 'dd <Mott> a <Iestyn> yn chwilio # ym bobman yn y tŷ ac yn gweiddi
 frog was.3SG and PROG search in\ \everywhere in the house and PROG shout
 frog. <Mott> and <Iestyn> searched, everywhere in the house and were shouting

am y broga ond doedd dim sôn am y broga ## roedd <Mott> wedi rhoi ei
 for the frog but was.3SG.NEG NEG mention about the frog was.3SG PRF put his
 for the frog but there was no sign of the frog. <Mott> had put his

ben yn y pot ## a fe neidi-odd allan o 'r ffenest a dorr-odd y pot # yn
 \head in the pot and AFF jumped-3SG out from the window and \broke-3SG the pot in
 head in the pot. And he jumped out of the window and the pot broke,

dyllion ## a rhaid i <Iestyn> achub y ci ## aeth <Iestyn> a <Mott> wedyn allan i 'r
 \pieces and necessity to save the dog went.3SG and then out to the
 into pieces. And Iestyn had to save the dog. <Iestyn> and <Mott> then went out to the

goedwig # gan chwilio am y broga ## chwilota ym bobman # chwilota mewn nythod
 \forest(f) with search for the frog search in\ \everywhere search in nests
 forest, with searching for the frog. Searching everywhere, searching in wasps' nests

cacwn ac yn tyllau y llygod ar y ddaear ## fe dring-odd <Iestyn> i-fyny 'r goeden
 wasps and in holes the mice on the \earth(f) AFF climbed-3SG up the \tree(f)
 and in the mouse holes in the ground. <Iestyn> climbed up the tree

i edrych yn twll yn y boncyff i weld os oedd e 'n gallu gweld y broga # ond
 to look in hole in the trunk to \see if was.3SG he PROG able see the frog but
 to look in a hole in the trunk to see if he was able to see the frog, but

doedd dim sôn # yr un beth â fel xxx # oedd gwddihw oedd yn grac
 was.3SG.NEG NEG mention the one thing as like was.3SG owl was.3SG PRED \angry
 there was no sign [of him], the same thing as like xxx, there was an owl who was angry

bod i gael ei dihuno ## ac roedd <Mott> wedi cynhyrfu 'r gwenyn ac roedd
 is.COMP to \get his wake and was.3SG PRF agitate the bees and was.3SG
 that he was woken. And <Mott> had agitated the bees and he was

e 'n neidio ar ei ôl e ac yn bygwth i frathu ## dring-odd <Iestyn> i-fyny 'r
 he PROG jump on his track he and PROG threaten to \bite climbed-3SG up the
 jumping after it and threatening to bite [it]. <Iestyn> climbed up the

ar ben craig # a gweiddi am y broga ## yr un beth â ddaeth # oedd carw mawr a
 on \head rock and shout for the frog the one \thing as \came.3SG was.3SG stag big and
 on top of a rock, and shouting for the frog. The same thing that came, there was a big stag and

fe gwymp-odd <Iestyn> rhwng cyrn carw a fe gari-odd y carw <Iestyn> ar ei
 AFF \fell-3SG between horns stag and AFF \carried-3SG the stag on his
 <Iestyn> fell between [the] stag's horns and the stag carried <Iestyn> on his

ben # a 'i luchio dros ben dibyn mewn # i llyn bach # mewn pwll o ddŵr # ac
 \head and his \throw over \head precipice in to lake little in pool of \water and
 head, and throws him over the top of the precipice in, to a little lake, in a pool of water, and

lan-odd <Iestyn> a <Mott> <ploff> yn y dŵr ## ac roedd e 'n xxx eistedd yn y dŵr
 \landed-3SG and in the water and was.3SG he PROG sit in the water
 <Iestyn> and <Mott> landed <ploff> in the water. And he was xxx sitting in the water

yn penderfyni beth i neud # pan glyw-odd <Iestyn> sŵn # <crawc> # <crawc> ## dyma
 PROG decide what to do when \heard-3SG sound here's
 deciding what to do, when <Iestyn> heard a sound, '<crawc, crawc>'. Here's

<Iestyn> yn gweud 'rtho <Mott> bydd ddistaw paid neud sŵn # a fe dring-ant
 PROG say to-him be.IMPV \silent don't make sound and AFF climb-3PL.FUT
 <Iestyn> telling <Mott> 'be silent don't make a sound,' and they climb

[/] dring-yssant i-fyny ar y boncyff [/] ar boncyff gerllaw a twll mawr yn y boncyff
 climbed.3PL.PLPF up on the trunk on trunk nearby and hole big in the trunk
 [/] they had climbed up on the trunk [/] on a trunk nearby and a big hole in the trunk

ond tu ôl yr boncyff gwel-odd <Iestyn> y broga # ac roedd &brog broga arall
 but side track the trunk saw-3SG the frog and was.3SG frog other
 but behind the trunk <Iestyn> saw the frog, and there was a &brog another female frog

benywaidd yno a un dau tri pedwar pump chwech saith o brogaod bychain ## ac
 female there and one two three four five six seven of frogs little and
 there and one two three four five six seven little frogs. And

un o 'r brogaod bychain # oedd y broga # oedd yn eiddo i <Iestyn> ##
 one of the frogs little was.3SG the frog was.3SG PRED property to
 one of the little frogs, was the frog, who belonged to <Iestyn>.

fe pigodd <Iestyn> y broga i-fyny a 'i gario 'n dynyr adre
 AFF picked-3SG the frog up and his \carry ADV \tender homeward
 <Iestyn> picked the frog up and carries him tenderly home.

edrych-odd y bachgen a 'i gi bach mewn i 'r jar at eu ffrind y &fr [/] y broga ##
 looked-3SG the boy and his \dog little in to the jar to their friend the the frog
 The boy and his little dog looked into the jar at their friend the &fr [/] the frog.

aeth y bachgen bach a 'i gi i gwely a tra maen nhw 'n cysgu 'n
 went.3SG the boy little and his \his dog to bed and while is.3PL they PROG sleep ADV
 The little boy and his dog went to bed and while they are sleeping

dawel fan 'na # a mas â 'r broga o 'r jar ## yn y bore deffr-odd y bachgen
 \quiet \place there and out with the frog from the jar in the morning woke-3SG the boy
 quietly there, and out with the frog from the jar. In the morning the boy and his dog

a 'i gi <oh> na meddai fe mae 'r broga wedi mynd ble wyt ti broga? chwilio am
 and his \dog no said he is.3SG the frog PRF go where is.2SG you frog search for
 woke ' <oh> no' he said 'the frog has gone where are you frog?' looking for

y broga yn ei esgidiau wyt ti mewn yn y fan 'na broga? a ci yn edrych yn
 the frog in his shoes is.2SG you in in the \place this frog and dog PROG look in
 the frog in his shoes 'are you in there frog?' and a dog looking in

y jar wyt ti mewn yma broga? ddim yn gallu ffeindio 'r broga yn unman yn yr
 the jar is.2SG you in here frog NEG PROG able find the frog in anywhere in the
 the jar 'are you in here frog?' not able to find the frog anywhere in the

ystafell wely # edrych mas trwy 'r ffenest wedyn # broga ble wyt ti? wyt ti
 room(f) \bed look out through the window then frog where is.2SG you is.2SG you
 bedroom, looking out through the window then, 'frog where are you? are you

allan yn dal yn fan 'na? ## cwyp-odd y ci o 'r ffenest <oh> na ## a 'r ci
 out PROG continue in \place there fell-3SG the dog from the window no and the dog
 still out there?' The dog fell from the window <oh> no. And the dog

yn &llyf [/] mae 'r ci yn iawn ond <sigh> be ti 'n neud &br ci meddai 'r
 PROG is.3SG the dog PRED okey but what you PROG do dog said the
 &llyf [/] the dog is okey but <sight> 'what are you doing &br dog' said the

bachgen bach mae popeth yn iawn # dal i chwilio am y broga # broga
 boy little is.3SG everything PRED okey continue to search for the frog frog
 little boy everything is okey, still looking for the frog, 'frog

ble wyt ti? wyt ti draw fan 'na? a chwilio yn y coed # a 'r ci yn &chw
 where is.2SG you is.2SG you over \place there and search in the trees and the dog PROG
 where are you? are you over there?' and looking in the trees, and the dog &chw

yn trio gwynto i weld os i fe 'n gallu gwynto 'r broga i weld ble mae fo wedi
 PROG try smell to \see if to he PROG able smell the frog to \see where is.3SG he PRF
 trying to smell to see if he can smell the frog to see where he has

mynd # draw yn y xxx goedwig fallai # goedwig dywyll fawr ## gwel-odd y ci um@fp
 go over in the \forest(f) maybe forest(f) \dark \big saw-3SG the dog
 gone, over in the xxx forest maybe, a big dark forest. The dog um@fp saw

gwch gwenyn a dechrau gwynto a cyfarth a chwarae gyda 'r gwenyn oedd yn
 \hive bees and begin smell and bark and play with the bees was.3SG PROG
 a beehive and begins to smell and bark and play with the bees who were

dawnsio o-gwmpas y cwch gwenyn # a 'r bachgen yn dal i chwilio am y broga
 dance around the hive bees and the boy PROG continue to search for the frog
 dancing around the beehive, and boy still looking for the frog,

helo broga wyt ti fan 'na ble wyt ti? i mewn i 'r twll yn y llawr? pwy
 hello frog is.2SG you \place there where is.2SG you to in to the hole in the ground who
 'hello frog are you there where are you? into the hole in the ground? who

sy 'n byw yn y twll? <oh> na dim broga sydd fan 'na # xxx mae 'r broga um@fp
 is.REL PROG live in the hole no NEG frog is.REL \place there is.3SG the frog
 lives in the hole?' <oh> no it's not a frog there, xxx the frog um@fp

[/] broga yn dal ar goll wyt ti wedi gweld y broga? na meddai fe <oh> na meddai
 frog PROG continue on \lost is.2SG you PRF see the frog no said he no said
 [/] frog is still lost 'have you seen the frog?' 'no' he said '<oh> no' said

'r bachgen # a mae 'r ci yn dal i chwarae gyda 'r gwenyn ## <oh dear>
 the boy and is.3SG the dog PROG continue to play with the bees
 the boy, and the dog is still playing with the bees. <oh dear>

mae 'r ci wedi bod yn chwarae gyda &g [/] gyda 'r goeden yn ormod a mae
 is.3SG the dog PRF be.INF PROG play with with the \tree(f) ADV \too.much and is.3SG
 the dog has been playing with &g [/] with the tree too much and

'r cwch gwenyn wedi cwmpo i 'r llawr mae 'r gwenyn i-gyd yn dod allan #
 the hive bees PRF fall to the ground is.3SG the bees all PROG come out
 the beehive has fallen to the ground all the bees are coming out,

yn grac bod yr um@fp [//] i-gyd yn dod allan yn grac bod y ci wedi
 PRED \angry is.COMP the all PROG come out PRED \angry is.COMP the dog PRF
 angry that the um@fp [//] all come out angry that the dog has

torri eu cartre nhw ## a 'r bachgen wedi mynd i chwilio mewn twll yn y goeden nawr
 break their home they and the boy PRF go to search in hole in the \tree(f) now
 broken their home. And the boy gone to search in a hole in the tree now

a wedyn dringo 'r goeden a gweiddi mewn i 'r twll helo broga ble wyt ti # wyt
 and then climb the \tree(f) and shout in to the hole hello frog where is.2SG you is.2SG
 and then climbing the tree and shouting into the hole 'hello frog where are you, are you

ti mewn yn fan 'na ## <oh> na # tylluan sy 'n byw yn y dwll yna ##
 you in in \place there no owl is.REL PROG live in the \hole(m) there
 in there.' <oh> no, it's an owl who lives in that hole.

cwmp-odd y bachgen i 'r llawr # a mae 'r gwenyn yn dal i hedfan
 fell-3SG the boy to the ground and is.3SG the bees PROG continue to fly
 The boy fell to the ground, and the bees are still flying

o-gwmpas ## mae 'r gwenyn # yn um@fp [/] mae 'r gwenyn yn [/] yn dilyn y ci
 around is.3SG the bees PROG is.3SG the bees PROG PROG follow the dog
 around. The bees, are um@fp [/] the bees are [/] are following the dog

a mae 'r ci yn rhedeg i-ffwrdd wrth y gwenyn maen nhw 'n dal yn grac
 and is.3SG the dog PROG run away by the bees is.3PL they PROG continue PRED angry
 and the dog is running away by the bees they are still angry

bod e wedi torri eu cartre nhw ## mae 'r dylluan yn grac fod y bachgen
 is.COMP he PRF break their home they is.3SG the \owl(f) PRED \angry \is.COMP the boy
 that he has broken their home. The owl is angry that the little boy

bach wedi um@fp [/] wedi <disturb>-io fe achos mae tylluan yn cysgu yn-ystod y dydd
 little PRF PRF -INF he because is.3SG owl PROG sleep during the day
 has um@fp [/] has <disturb>ed him because an owl sleeps during the day,

<oh> na cer i-ffwrdd xxx chwilio am y broga meddai 'r bachgen bach ## broga
 -- no go.2SG.IMPV away search for the frog said the boy little frog
 <oh> na go away xxx search for the frog' said the little boy. 'Frog

ble wyt ti? wedi uh@fp dringo i ben y garreg fawr nawr i weiddi ac mae 'n
 where is.2SG you PRF climb to \head the \rock(f) \big now to shout and is.3SG PROG
 where are you?' uh@fp climbed on top the big rock to shout and [he]'s

pwysu ar y canghennau # <oh> na dim canghennau yw nhw ond # cynn yr um@fp [/] cynn
 lean on the branches no NEG branches COP they but horns the horns
 leaning on the branches, <oh> no they aren't branches but, horns of the um@fp [/] the

yr carw mawr # 'drych mae ar uh@fp [/] 'di eistedd ar ben yr [/] y carw # mae 'r
 the stag big look is.3SG on PRF sit on \head the the stag is.3SG the
 big stag's horns, look there are on uh@fp [/] have sat on the head of the [/] the stag, the

carw yn rhedeg i-ffwrdd naeth e gweld ble mae 'n mynd # <oh> na #
 stag PROG run away did.3SG he see where is.3SG PROG go no
 stag is running away did he see where [he] was going? '<oh> no,

stopia stopia # maen nhw 'n rhedeg i ben y dibyn # <oh dear> maen
 stop.2SG.IMPV stop.2SG.IMPV is.3PL they PROG run to \head the precipice is.3PL
 stop stop,' they are running to the top of the precipice, <oh dear> they

nhw 'n cwmpo # mae 'r carw yn llwyddo stopio mewn pryd ond mae 'r
 they PROG fall is.3SG the stag PROG succeed stop in time but is.3SG the
 fall, the stag succeeds in stopping in time but the

bachgen a 'r ci yn cwmpo i mewn i 'r dŵr ### a # goeden arall nawr # maen
 boy and the dog PROG fall to in to the water and \tree other now is.3PL
 boy and the dog fall into the water. And, another tree now, they

nhw 'n mynd i chwilio yn fan hyn efallai <oh> na # <splash> # <splash> â ni
 they PROG go to search in \place this maybe no with we
 are going to search here maybe <oh> no, <splash>, <splash> with us

mewn i 'r dŵr ## ond mae popeth yn iawn # a mae ci yn eistedd ar ben
 in to the water but is.3SG everything PRED okey and is.3SG dog PROG sit on \head
 into the water. But everything is okey, and a dog is sitting on top of

y [/] y bachgen bach ## <sh> meddai 'r bachgen wrth y ci dw i 'n clywed
 the the boy little said the boy to the dog is.1SG I PROG hear
 the [/] the little boy. 'Sh' said the boy to the dog 'I hear

rhywbeth yn y gangen bren yma # broga # ai ti sy mewn fan 'na? edrych i
 something in the \branch(f) \wood here frog FOC.INT you is.REL in \place there look to
 something in the wood branch here, 'frog, is it you in there?' looking

mewn i 'r dwll # <oh> dyma 'r broga ac wedi ffeindio ffrind ## ni mor falch i dy
 in to the hole(m) here's the frog and PRF find friend we so \pleased to your
 into the hole, <oh> here's the frog and found a friend. 'We [are] so pleased to

weld di broga # <oh> # a mae teulu bach gyda broga # wedi ffeindio gwraig
 \see you frog and is.3SG family little with frog PRF find wife
 see you frog, ' <oh>, and frog has a little family, found a wife

a wedi cael plant bach felly pawb yn hapus ## hyfryd # grêt # hwyl broga #
 and PRF get children little so everyone PRED happy lovely great bye frog
 had little children so everybody is happy. Lovely, great, 'bye frog,

nei di [/] hwyl-fawr y teulu mae 'r broga mynd adre gyda 'r bachgen a
 do.2SG.FUT you goodbye the family is.3SG the frog go homeward with the boy and
 you will [/] goodbye the family' the frog goes home with the boy and

'i gi yn hapus a mae pawb wedi cael diwrnod braf ## hwyl-fawr broga meddai 'i
 his \dog ADV happy and is.3SG everyone PRF get day fine goodbye frog said his
 his dog happily and everyone has had a fine day. 'Goodbye' said his

deulu nawn ni weld ti cyn bo hir
 \family do.1PL.FUT we \see you before is.3SG.SBJV long
 family 'we will see you before long.'

mae 'na blentyn bach ar waelod y gwely ## mae hi 'n hwyr y nos ac feddwl
 is.3SG there \child little on \bottom the bed is.3SG she PRED late the night and \think
 There's a small child on the bottom of the bed. Its late at night and thinks

yr plentyn fod e 'n mynd i 'r gwely ## mae e 'n edrych ac mae 'na gi
 the child \is.COMP he PROG go to the bed is.3SG he PROG look and is.3SG there \dog
 the child that he's going to bed. He's looking and there's a little

bach gyda fe ac maen nhw 'n edrych ar froga sydd y tu mewn i wydr ar waelod
 little with he and is.3PL they PROG look on \frog is.REL the side in to \glass on \bottom
 dog with him and they are looking at a frog who is inside glass at the end

y gwely ## mae 'r bachgen bach wedi blino 'n lan ac mae e a 'r ci yn
 the bed is.3SG the boy little PRF tire PRED \clean and is.3SG he and the dog PROG
 of the bed. The little boy is exhausted and he and the dog

mynd i 'r gwely ac mae 'n cysgu yn dawel # mae e wedi tynnu ei <slippers>
 go to the bed and is.3SG PROG sleep ADV \quiet is.3SG he PRF pull his
 go to the bed and [they] sleep quietly, he has put on his <slippers>

ac mae 'n chwyrnu 'n braf â 'r ci ## a beth sy 'n digwydd # mae 'r
 and is.3SG PROG snore ADV fine with the dog and what is.REL PROG happen is.3SG the
 and [he]'s snoring fine with the dog. And what happens, the

broga yn dod mas o 'r jar gwydr ## yn y bore # wedi 'r bachgen a 'r ci
 frog PROG come out from the jar glass in the morning after the boy and the dog
 frog comes out of the glass jar. In the morning, after the boy and the dog

ddihuno # mae e 'n llawn cyffro i-gyd ac yn mynd lawr i waelod y gwely
 \wake is.3SG he PROG full excitement all and PROG go down to \bottom the bed
 woke up, he's all excited and goes down to the end of the bed

i edrych i weld os yw 'r broga yna ## ond i 'r mawr siom i-ddo mae 'r
 to look to \see if is.3SG the frog there but to the big disappointment to-him is.3SG the
 to look to see if the frog is there. But to his great disappointment the

broga wedi mynd ## dyw e 'm yn bosibl bod y broga wedi mynd ## mae
 frog PRF go is.3SG.NEG he NEG PRED \possible is.COMP the frog PRF go is.3SG
 frog has gone. 'It isn't possible that the frog is gone.

hynny yn hollol amhosibl # roedd e yno neithiwr felly dyma 'r bachgen bach yn
 that ADV entire impossible was.3SG he there last.night so here's the boy little PROG
 That is entirely impossible, he was there last night so here's the little boy

chwilio ym mhobman am y broga ac roedd y ci hefyd yn chwilio # roedd y
 search in \everywhere for the frog and was.3SG the dog also PROG search was.3SG the
 searching everywhere for the frog and the dog was also searching, the

ddau yn benderfynnol o ddod-o-hyd-i 'r broga # a dyn nhw ddim yn deall
 \two(m) PRED \determined of \find the frog and is.3PL they NEG PROG understand
 two were determined to find the frog, and they did not understand

i ble oedd e wedi mynd ## roedd y ci druan wedi mynd i chwilio mewn i 'r
 to where was.3SG he PRF go was.3SG the dog(m) \poor PRF go to search in to the
 where he had gone. The poor dog had gone to search into the

jar gwydr ac oedd e 'n methu cael ei ben allan # ond fe naeth-on nhw ddal i
 jar(f) glass and was.3SG he PROG fail get his \head out but AFF did-3PL they \continue to
 glass jar and he failed to get his head out, but they continued to

chwilio ## a dyma 'r bachgen yn cael y syniad o agor y ffenest a galw enw
 search and here's the boy PROG get the idea of open the window and call name
 search. And here's the boy getting the idea to open the window and call the name

y broga # broga # broga lle wyt ti? lle wyt ti? der yn ôl #
 the frog frog frog where is.2SG you where is.2SG you come.2SG.IMPV in track
 of the frog, 'frog, frog where are you? where are you? Come back,

der yn ôl ## <oh dear> # tra bod y bachgen bach yn galw am y broga #
 come.2SG.IMPV in track while is.COMP the boy little PROG call for the frog
 come back.' <Oh dear>, while the little boy is calling for the frog,

fe gwymp-odd y ci o silff y ffenest lawr i 'r llawr ## ac yn anffodus #
 AFF \fell-3SG the dog from shelf the window down to the ground and ADV unfortunate
 the dog fell from the window sill down to the ground. And unfortunately,

roedd y jar gwydr yn dal am ei ben e ## roedd y bachgen bach ychydig
 was.3SG the jar glass PROG continue about his \head he was.3SG the boy little bit
 the glass jar was still around his head. The little boy was a little bit

bach yn grac gyda 'r ci # roedd e wedi torri 'r jar gwydr # ond oedd y ci
 little PRED \angry with the dog was.3SG he PRF break the jar glass but was.3SG the dog
 angry with the dog, he had broken the glass jar, but the dog was

yn falch iawn iawn o gael ei ben yn rhydd o 'r gwydr # ac roedd y
 PRED \pleased very very of \get his \head PRED free from the glass and was.3SG the
 very very pleased to get his head free of the glass, and the

bachgen bach hefyd yn eitha balch fod y ci yn ddiogel ## ac fe aethon
 boy little also PRED quite pleased is.COMP the dog PRED \safe and AFF went-3PL
 little boy was also quite pleased that the dog was safe. And they went

nhw am dro allan i 'r goedwig # a dyma fe 'n galw eto ## broga # broga lle
 they for \turn out to the \forest(f) and here's he PROG call again frog frog where
 for a walk out to the forest, and here he is calling again. 'Frog, frog where

wyt ti # lle wyt ti ac oedd 'na adar yn hedfan ac oedd 'na ddau yn
 is.2SG you where is.2SG you and was.3SG there birds PROG fly and was.3SG there \two PROG
 are you, where are you' and there were birds flying and there were two

syrthio o 'r coed ond dim sôn am y broga bach yn unman ### a dyma nhw
 fall from the trees but NEG mention about the frog little in anywhere and here's they
 falling from the trees but no sign of the little frog anywhere. And here they

'n mynd at goeden fawr fawr fawr oedd ar ymyl y goedwig # a beth naeth-on nhw
 PROG go to \tree \big \big \big was.3SG on edge the \forest(f) and what did-3PL they
 go to a big big big tree that was at the edge of the forest, and what did they

weld ond nyth gwenyn # ac oedd y gwenyn yn mynd <bzz bzz> ac o-'n nhw
 \see but nest bees and was.3SG the bees PROG go and was-3PL they
 see but a bees' nest, and the bees were going <bzz bzz> and they

'n gweld lot fawr o fynd a dod o gwch y gwenyn [/] o 'r nyth y gwenyn
 PROG see many(f) \big of \go and come from \hive(m) the bees from the nest the bees
 saw a whole lot of coming and going from the beehive [/] from the bees' nest.

a dyma 'r bachgen bach yn dod-o-hyd-i dwll ## mae 'r bachgen bach yn
 and here's the boy little PROG find \hole is.3SG the boy little PROG
 And here's the little boy finding a hole. The little boy

dod-o-hyd-i dwll o-dan y nyth gwenyn ## a dyma fe 'n gweiddi lawr y twll rhag
 find \hole under the nest bees and here's he PROG shout down the hole from
 finds a hole under the bees' nest. And here he is shouting down the hole in case

ofn bod y broga wedi mynd lawr y twll # a tra oedd e 'n gwneud hyn #
 fear is.COMP the frog PRF go down the hole and while was.3SG he PROG do this
 the frog has gone down the hole, and while he was doing this,

oedd y ci bach yn neidio fyny tuag at y nyth achos oedd e 'n gweld
 was.3SG the dog little PROG jump up toward to the nest because was.3SG he PROG see
 the little dog was jumping up to the nest because he saw

cymaint o fynd a dod o 'r nyth ond dal dim sôn am y broga ### hm@fp
 so.much of \go and come from the nest but continue NEG mention about the frog
 so much coming and going from the nest but still no sign of the frog. Hm@fp

um@fp yn sydyn dyma 'r bachgen bach yn teimlo rhywbeth wrth ei drwyn e # ac
 ADV sudden here's the boy little PROG feel something at his \nose he and
 um@fp suddenly here's the little boy feeling something by his nose, and

oedd e 'n meddwl tybed ai broga sydd yma # ond i 'r mawr syndod i-ddo #
 was.3SG he PROG think I.wonder is.it frog is.REL here but to the big surprise to-him
 he thought 'I wonder if it is the frog who is here,' but to his great surprise,

fe welodd e mai wiwer oedd yno ond <fi 'n credu> mai gwiwer yw hi
 AFF \saw-3SG he is.COMP \squirrel was.3SG there but I PROG think is.COMP squirrel COP she
 he saw that it was a squirrel there but <I think> that it's a squirrel,

ac oedd y gwiwer wedi bod lawr yn [/] yn y twll ## dal i gyfarth ac yn
 and was.3SG the squirrel PRF be.INF down in in the hole continue to \bark and PROG
 and the squirrel had been down in [/] in the hole. Still barking and

dal i neidio at y nyth gwenyn oedd yr hen gi bach ond # dim sôn am
continue to jump to the nest bees was.3SG the old \dog little but NEG mention about
still jumping at the bees' nest was the old little dog but, no sign of

y broga ## dyma 'r ci bach yn penderfynu ysgwyd y goeden # nawr doedd
the frog here's the dog little PROG decide shake the \tree(f) now was.3SG.NEG
the frog. Here's the little dog deciding to shake the tree, now

hi ddim yn syniad da iawn ## be' ddigwydd-odd # fe wnaeth y nyth gwenyn
she NEG PRED idea good very what \happened-3SG AFF did.3SG the nest bees
it wasn't a very good idea. What happened, the bees' nest

gwympo lawr i 'r llawr # ac oedd y gwenyn yn grac iawn iawn ac yn dechrau
\fall down to the ground and was.3SG the bees PRED \angry very very and PROG begin
fell down to the ground, and the bees were very very angry and beginning

neud sŵn mawr ac yn dawnsio ac yn chwyrlio o-gwmpas y nyth ond oedd y ci
make noise big and PROG dance and PROG whirl around the nest but was.3SG the dog
to make a big noise and dancing and whirling around the nest. But the little dog

bach yn meddwl ei bod e 'n lot o hwyl ### tra bod hyn i-gyd yn digwydd #
little PROG think his is.COMP he PRED lot of fun while is.COMP this all PROG happen
thought that it was a lot of fun. While all this was happening,

roedd y bachgen yn dal i chwilio am y broga yn dal i weiddi broga #
was.3SG the boy PROG continue to search for the frog PROG continue to \shout frog
the boy was still looking for the frog still shouting 'frog,

lle wyt ti? lle wyt ti? # a dyma fe yn dod-o-hyd-i dwll mewn i un coeden
where is.2SG you where is.2SG you and here's he PROG find \hole in to one tree(f)
where are you? where are you?' and here he is finding a hole in one

fawr fawr a dyma fe meddwl tybed ydy 'r broga wedi mynd i guddio yn y twll ##
\big \big and here's he think I.wonder is.3SG.Q the frog PRF go to \hide in the hole
big big tree and here he is thinking 'I wonder has the frog gone to hide in the hole.'

ond cartre y dylluan oedd y twll # a dyma hi yn dod allan i ddweud <hey>
but home the \owl(f) was.3SG the hole and here's she PROG come out to \say
But the hole was the owl's home, and here she is coming out to say '<hey>

beth wyt ti 'n neud fan hyn fy nghartre i yw hwn dos i-ffwrdd
what is.2SG you PROG do \place this my \home I COP this go.2SG.IMPV away
what are you doing here this is my home go away

cer i-ffwrdd ac fe gwmp-odd y bachgen ar ei ben-ôl ar y llawr # ac
go.2SG.IMPV away and AFF \fell-3SG the boy on his \bottom on the ground and
go away' and the boy fell on his bottom on the ground, and

uwch ei ben e # dyma 'r gwenyn i-gyd yn hedfan yn un cwmwl mawr trwchus
over his \head he here's the bees all PROG fly in one cloud big thick
over him, here are all the bees flying in one big thick cloud

uwch ei ben e yn amlwg wedi gwylltio ac yn chwilio am gartre am nyth arall ##
 over his \head he ADV obvious PRF go.wild and PROG search for \home for nest other
 over his head obviously gone wild and searching for home for another nest.

ond # beth sylw-odd y bachgen ddim oedd mae mynd ar ôl yr hen gi bach
 but what observed-3SG the boy NEG was.3SG is.3SG go on track the old \dog little
 But, what the boy didn't see was that going after the old little dog

oedd y gwenyn ro-'n nhw wedi sylweddoli mai fe oedd yn gyfrifol am
 was.3SG the bees was-3PL they PRF realize is.COMP he was.3SG PRED \responsible for
 were the bees they had realized that he was responsible

ollwng y nyth ac ysgwyd y goeden ac o-'n nhw 'n grac iawn ac o-'n
 \drop the nest and shake the \tree(f) and was-3PL they PRED \angry very and was-3PL
 for dropping the nest and shaking the tree and they were very angry and they

nhw 'n benderfynol o ddal y ci bach ac o-'n nhw 'n hedfan yn gyflym
 they PRED \determined of \catch the dog little and was-3PL they PROG fly ADV \fast
 were determined to catch the dog and they were flying fast

gyflym ar ôl y ci ## oedd y bachgen bach yn dal i bendroni ble mae 'r
 \fast on track the dog was.3SG the boy little PROG continue to \worry where is.3SG the
 fast after the dog. The little dog is still worrying where the

broga # a dyma 'r dylluan yn dod at-o fe # a dyna fe 'n gofyn fallai i 'r
 frog and here's the \owl(f) PROG come to-him he and there's he PROG ask maybe to the
 frog is, and here's the owl coming at him, and there he is asking maybe to the

dylluan am os ydy 'r dylluan yn fodlon helpu i chwilio am y broga ## fe
 \owl(f) about if is.3SG.Q the \owl(f) PRED \willing help to search for the frog AFF
 owl about if the owl is willing to help to search for the frog.

ddaeth y ci bach yn ôl yn amlwg wedi cael ofn a braw ar ôl i 'r gwenyn
 \came.3SG the dog little in track ADV obvious PRF get fear and fright on track to the bees
 The little dog came back obviously having gotten a scare and a fright after the bees

i fod yn mynd ar ei ôl e # a 'r dylluan yn edrych i weld beth oedd yn
 to \be.INF PROG go on his track he and the \owl(f) PROG look to \see what was.3SG PROG
 were going after him, and the owl looks to see what was

digwydd a bachgen bach yn dal i alw froga froga ble wyt ti der
 happen and boy little PROG continue to \call \frog \frog where is.2SG you come.2SG.IMPV
 happening and [the] little boy still calling 'frog frog where are you come

yn ôl der yn ôl ## um@fp carw ## yn sydyn # dyma rhywbeth mawr yn
 in track come.2SG.IMPV in track stag ADV sudden here's something big PROG
 back come back.' Um@fp a stag. Suddenly, here's something big

dod o 'r tu cefn i 'r garreg fawr # oedd y tylluan yn gallu gweld oedd y
 come from the side back to the \rock(f) \big was.3SG the owl(f) PROG able see was.3SG the
 coming from behind the big rock, the owl was able to see the dog was

ci yn gallu gweld a cafodd y bachgen cymaint o fraw # carw oedd e # carw
 dog PROG able see and got.3SG the boy so.much of \fright stag was.3SG he stag
 able to see and the boy got so much of a fright, it was a stag, a stag

â cynn mawr pigog ar ei ben e # ac wrth i 'r bachgen bach symud # dyma fe 'n
 with horns big spiny on his \head he and as to the boy little move here's he PROG
 with big spiny horns on his head, and as the little boy moves, here he

mynd yn sownd reit yng nghanol y cynn ar ben y carw # a dyma 'r carw # yn
 go PRED stuck right in\ \middle the horns on \head the stag and here's the stag PROG
 goes stuck right in the middle of the horns on top of the stag, and here the stag,

cerdded i-ffwrdd a 'r bachgen bach yn dal ar ei ben e rhwng y cynn ## ond
 walk away and the boy little PROG continue on his \head he between the horns but
 walks away and the little boy is still on his head between the horns. But

roedd 'na glogwyn gerllaw # a dyma carw yn aros yn sydyn a dyma 'r
 was.3SG there \cliff nearby and here's stag PROG stay ADV sudden and here's the
 there was a cliff nearby, and here's stag stopping suddenly and here is the

bachgen a 'r ci yn cwmpo lawr y dibyn ### a lawr a lawr a lawr â nhw
 boy and the dog PROG fall down the precipice and down and down and down with they
 boy and the dog falling down the precipice. And down and down and down with them

nes bo nhw 'n mynd <splash> mewn i 'r afon oedd ar y gwaelod # mae
 until is.3SG.SBJV they PROG go in to the river was.3SG on the bottom is.3SG
 until they go <splash> into the river that was at the bottom,

'r carw yn edrych lawr yn-ddyn nhw # ond # oedd y bachgen bach a 'r ci
 the stag PROG look down in-them they but was.3SG the boy little and the dog
 the stag looks down at them, but, the little boy and the dog had

wedi gwmpo ond oedd popeth yn iawn # popeth yn iawn # dyma nhw dau
 PRF \fall but was.3SG everything PRED okay everything PRED okay here's they two
 fallen but everything was okay, everything [is] ok, here are the two of them

nawr a ci bach ar ben y bachgen bach erbyn hyn yn eistedd fyny ac yn gweld
 now and dog little on \head the boy little by this PROG sit up and PROG see
 now and little dog on top of the little boy now sittin gup and seeing

brigyn mawr o goeden oedd wedi &gwiwa [/] wedi syrthio wrth yn y dŵr ## ac
 branch big of \tree was.3SG PRF PRF fall at in the water and
 a big branch of a tree that had &gwiwa [/] had fallen in the water. And

oedd yr hen gi bach yn cyfarth # a dyma 'r bachgen yn dweud wrth-o <ist> #
 was.3SG the old \dog little PROG bark and here's the boy PROG say to-him
 the little old dog was barking, and here's the boy telling him ' <ist> ,

bydd yn dawel # fallai bod y broga i fewn yn y brigyn mawr # a dyma
be.2SG.IMPV PRED \quiet maybe is.COMP the frog to \in in the branch big and here's
be quiet, maybe the frog is in the big branch,' and here

nhw 'n chwilio ac oedd e 'n dywyll tu mewn i 'r brigyn do-'n nhw
they PROG search and was.3SG he PRED \dark side in to the branch was-3PL.NEG they
they are searching and it was dark inside the branch they weren't

ddim yn gallu gweld ## a beth naeth-on nhw weld # ond # nid un broga ond dau froga
NEG PROG able see and what did-3PL they \see but NEG one frog but two \frog
able to see. And what did they see, but, not one frog but two frogs

ac oedd y ddau yn amlwg yn hapus ac yn gysurus iawn ## ac i 'r
and was.3SG the \two(m) ADV obvious PRED happy and PRED \comfortable very and to the
and the two were obviously happy and very comfortable. And to their

mawr syndod i-ddyn nhw # beth naeth y bachgen a 'r ci weld yn neidio yn hapus
big surprise to-them they what did.3SG the boy and the dog \see PROG jump ADV happy
big surprise, what did the boy and the dog see jumping happily

oedd plant bach oedd 'na [/] oedd 'na um@fp frogaod bach wedi ymddangos # a
was.3SG children little was.3SG there was.3SG there \frogs little PRF appear and
were little children there were [/] um@fp little frogs appeared there, and

'r ddau froga balch y rhieni yn amlwg wrth eu bodd ## a dyma ni 'n dod
the \two(m) \frog proud the parents ADV obvious at their pleasure and here's we PROG come
the two proud frogs the parents obviously delighted. And here we come

tua diwedd y stori pawb yn hapus # y bachgen bach yn cael y broga yn ei
toward end the story everybody PRED happy the boy little PROG get the frog in his
to the end of the story everybody happy, the little boy gets the frog in his

law # a ci ag ynte' yn mynd 'n ôl adre gan adael y teulu bach o frogaod
\hand and dog with he PROG go in track homeward since \leave the family little of \frogs
hand, and dog with him going back home since leaving the little family of frogs

yn hapus hapus ar y goeden a 'r brigyn a 'r twll mawr yn nghanol y brigyn
PRED happy happy on the \tree(f) and the branch and the hole big in \center the branch
happy happy on the tree and the branch and the big hole in the middle of the branch.

um@fp ci yn edrych lawr i 'r froga trwy 'r jar a 'r plentyn bach yn eistedd
 dog PROG look down to the \frog(m) through the jar and the child little PROG sit
 Um@fp a dog looking down to the frog through the jar and the small child sitting

ar stôl ar-bwys uh@fp [/] ar-bwys y gwely # uh@fp noswaith um@fp digon? uh@fp mae
 on stool near near the bed evening enough is.3SG
 on a stool near uh@fp [/] near the bed, uh@fp evening um@fp enough? Uh@fp

dal y nos a mae 'r bachgen a 'r ci yn cysgu yn y gwely # a mae
 continue the night and is.3SG the boy and the dog PROG sleep in the bed and is.3SG
 [it]'s still night and the boy and the dog are sleeping in the bed, and

'r broga yn camu mas o 'r jar # a mae xxx # a nawr mae 'r &fro [/] mae
 the frog PROG step out from the jar and is.3SG and now is.3SG the is.3SG
 the frog steps out of the jar, and xxx, and now the &fro [/] [it]'s

fore # a mae broga 'di mynd a mae 'r bachgen yn sylwi a # mae 'r ci
 \morning and is.3SG frog PRF go and is.3SG the boy PROG notice and is.3SG the dog
 morning, and a frog has gone and the boy notices and, the dog

yn sylwi 'fyd ## <so> mae bachgen yn gwisgo yn glau mae ci yn edrych
 PROG notice also is.3SG boy PROG dress ADV \swift is.3SG dog PROG look
 notices also. <So> a boy dresses quickly a dog looks

i mewn i 'r jar # mae 'na <sort of> cydweithio 'n troi stôl ar ei waered ## mae 'r
 to in to the jar is.3SG there cooperate PROG turn stool on his \bottom is.3SG the
 into the jar, there's a <sort of> cooperation turning a stool upside down. The

jar yn sownd ar fen y ci a mae 'r bachgen yn galw mas o 'r fenest # mae
 jar PRED stuck on \head the dog and is.3SG the boy PROG call out from the window is.3SG
 jar is stuck on the dog's head and the boy is calling out of the window,

'r ci yn <jump>-io trwy 'r ffenest # a mae 'r bachgen yn [/] yn <chimod>
 the dog PROG -INF through the window and is.3SG the boy PROG PROG you.know
 the dog <jump>s through the window, and the boy is [/] <you know>

poeni am feth # uh@fp bachgen oh@fp mae 'r jar wedi <smash>-io a mae 'r ci
 worryabout \thing boy is.3SG the jar PRF -INF and is.3SG the dog
 worrying about [some]thing. Uh@fp a boy oh@fp the jar has <smash>ed and the dog is

yn llyfu 'r bachgen ond mae 'r bachgen dim yn edrych yn hapus ## xxx sgidiau mawr
 PROG lick the boy but is.3SG the boy NEG PROG look PRED happy shoes big
 licking the boy and the boy doesn't look happy. xxx big shoes

uh@fp mae <fe> 'n galw y bachgen uh@fp wrth ymyl rhyw goedwig am y broga xxx
 is.3SG he PROG call the boy at edge some \forest for the frog
 uh@fp <he> is calling they boy uh@fp at the edge of some forest for the frog xxx

a mae 'r ci yn gwynto rhywbeth ## a mae 'n cael golwg o goedwig ## ac
and is.3SG the dog PROG smell something and is.3SG PROG get look of \forest and
and the dog smells something. And [he] gets a look at the forest. And

yn galw ar twll # a mae 'r ci yn cyfarth lan at <sort of> haid o wenyn ## a
PROG call on hole and is.3SG the dog PROG bark up to swarm of \bees and
calls on a hole, and the dog is barking up at s <sort of> swarm of bees. And

<sa i 'n 'wybod beth yw hwn <actually>> mae rhyw [/] mae rhyw anifail wedi
is.1SG.NEG I PROG \know what COP this is.3SG some is.3SG some animal PRF
<I don't know what this is <actually>> there's some [/] there's some animal

dod mas o 'r [/] o 'r um@fp [/] o 'r twll # uh@fp edrych fel <sa i 'n
come out from the from the from the hole look like is.1SG.NEG I PROG
come out of the [/] of the um@fp [/] out of the hole, uh@fp looks like <I don't

gwybod> ## <sa i 'n wybod beth yw <actually>> um@fp <haha> 'di bwrw ar
know is.1SG.NEG I PROG \know what COP PRF strike on
know>. <I don't know what it is <actually>> um@fp <haha> struck

bachgen ar ei drwyn a mae 'r ci yn cyfarth lan at y gwenyn dal uh@fp
boy on his \nose and is.3SG the dog PROG bark up to the bees continue
a boy on his nose and the dog is barking up to the bees still uh@fp

mae 'r cwch gwenyn wedi cwmpo a mae 'r gwenyn yn dod mas a mae 'r
is.3SG the hive bees PRF fall and is.3SG the bees PROG come out and is.3SG the
the beehive has fallen and the bees come out and the

ci yn edrych fel mae 'n poeni a mae 'r anifail fel <groundhog> neu rhywbeth
dog PROG look like is.3SG PROG worry and is.3SG the animal like or something
dog loks like he is worrying and the animal like a <groundhog> or something

yn <sort of> <peep>-o mas o 'r twll ## a mae 'r uh@fp bachgen yn <sort of> galw
PROG -INF out from the hole and is.3SG the boy PROG call
<sort of> peeps out of the hole. And the uh@fp boy <sort of> calls

lawr twll mewn rhyw goeden ## t'uan dod mas # a wedyn # mae 'r gwenyn yn <sort of>
down hole in some \tree owl come out and then is.3SG the bees PROG
down a hole in some tree. An owl come[s] out, and then, the bees <sort of>

hedfan heibio ## y bachgen yn cwmpo ## mae 'r gwenyn yn <chas>-o 'r ci
fly past the boy PROG fall is.3SG the bees PROG -INF the dog
fly past. The boy fall[s]. The bees are <chas>ing the dog

trwy 'r goedwig # ci ddim yn hapus # mae 'r # [/] wel mae 'r bachgen yn
through the \forest(f) dog NEG PRED happy is.3SG the well is.3SG the boy PROG
through the forest, dog [is]n't happy, the, [/] well the boy is

<sort of> trio dianc o 'r [/] o 'r gwddihw [/] o 'r dylluan # yn galw # a 'r #
-- try escape from the from the owl from the \owl(f)/ PROG call and the
<sort of> trying to escape from the [/] from the owl [/] from the owl, calling, and the,

wel dros garreg # neu beth sy 'n edrych fel <sort of> <antlers> carw <oh> <ya> <ya>
 well over \rock or what is.REL PROG look like stag
 well over a rock, or what looks like <sort of> stag <antlers> <oh> <ya> <ya>

<antlers> carw yn nhw a mae 'di cwmpo ar y carw ## a mae 'r carw
 -- stag is.3PL they and is.3SG PRF fall on the stag and is.3SG the stag
 they are <antlers> and [he] has fallen on the stag. And the stag

rhedeg <off> gyda fe ar ei ben a mae 'r ci yn cyfarth # <fel yw ei ddefod> # a
 run with he on his \head and is.3SG the dog PROG bark like COP his \custom and
 runs <off> with him on his head and the dog barking, <as is his wont>, and

maen nhw gyd wel [/] na mae 'r [/] mae 'r [/] mae 'r bachgen a 'r ci yn cywmpo
 is.3PL they all well there is.3SG the is.3SG the is.3SG the boy and the dog PROG fall
 they all well [/] there, the [/] the [/] the boy and the dog fall

dros ymyl <sort of> clogwyn a mae 'r carw [/] mae carw ddim ## jyst coeden nawr #
 over edge cliff and is.3SG the stag is.3SG stag NEG just tree now
 over edge of a <sort of> cliff and the stag [/] stag doesn't. Just a tree now,

sa i 'n gwybod pam ond jyst un o goeden # a maen nhw 'di cwmpo wel
 is.1SG.NEG I PROG know why but just one of \tree and is.3PL they PRF fall well
 I don;t know why but just one tree, and they have fallen well

<dramatic effect> mae [/] mae wedi cwmpo mewn i wel <sort of> llyn bach ## a mae 'r
 -- is.3SG is.3SG PRF fall in to well lake little and is.3SG the
 <dramatic effect> [they] [/] [they] have fallen into well <sort of> a little lake. And the

bachgen edrych fel mae 'n clywed y broga a ci 'fyd ## mae 'n gweud i 'r ci
 boy look like is.3SG PROG hear the frog and dog also is.3SG PROG say to the dog
 boy looks like [he] hears the frog and the dog too. [He] says to the dog

fod yn dawel ## mae 'n edrych dros # <sort of> boncyff ## a &c dau froga
 \be.INF PRED \quiet is.3SG PROG look over trunk and two \frog
 to be quiet. He looks over, a <sort of> trunk. And &c two frogs

gyda 'u gilydd ## a 'u plant nhw # a <so> mae 'n sylweddoli bod y
 with their \companion and their children they and is.3SG PROG realize is.COMP the
 together. And their children, and <so> [he] realizes that the

broga jyst 'di mynd 'n ôl at ei wraig a 'i blant ## a nawr # ydyw e 'n mynd
 frog just PRF go in track to his \wife and his \children and now is.3SG.Q he PROG go
 frog has just gone back to his wife and his children. And now, is he taking

â broga 'n ôl? ## mae 'n edrych tipyn-bach yn greulon ## xxx mynd â broga
 with frog in track is.3SG PROG look little-bit PRED \cruel go with frog
 the frog back?. [It] looks a little bit cruel. xxx taking a little frog

bach 'n ôl ## a mae teulu 'r brogaod yn edrych yn hapus sa i 'n #
 little in track and is.3SG family the frogs PROG look PRED happy is.1SG.NEG I PRED
 back. And the family of frogs look happy I'm not,

[/] sa i 'n <quite> yn siwr pam achos mae un wedi cael [/] # cael ei ddwyn
 is.1SG.NEG I PRED PRED sure why because is.3SG one PRF get get his \steal
 [/] I'm not <quite> sure why because one has been, [/] been stolen.

roedd 'na fachgen fach yn barod i fynd i 'r gwely ar y noson dywyll a
was.3SG there \boy(f) \little(m) PRED \ready to \go to the bed on the night(f) \dark and
There was a little boy ready to go to bed on a dark night and

lleuad yn olau tu fas i 'r stafell a dyma fe yn gwylio ei gi bach ac
mood PRED \light side \out to the room and here's he PROG watch his \dog little and
[the] moon [is] light outside the room and here's him watching his little dog and

oedd yna llyffant [/] roedd 'na lyffant bach mewn jar wrth ymyl ei wely wel
was.3SG there frog was.3SG there \frog little in jar by edge his \bed well
there was a frog [/] there was a little frog in a jar next to his bed 'well

mae 'n pryd i fi fynd i 'r gwely nawr meddai 'r bachgen bach ## a dyma 'r
is.3SG PRED time to I \go to the bed now said.3SG the boy little and here's the
[it]'s time to go to bed now' said the little boy. And here's the

bachgen bach yn gorwedd yn y gwely mynd o-dan y dillad # a oedd e wedi
boy little PROG lie in the bed go under the clothes and was.3SG he PRF
little boy lying in the bed going under the covers, and he was

blino 'n garn # a 'r ci bach yn mynd i gwely gyda fe # cwtsio ar waelod y
tire PRED \hilt and the dog little PROG go to bed with he hddlw on \bottom the
tired through and through, and the little god going to bed with him, huddling up at the bottom

gwely mynd i gysgu ## wel unwaith oedd y ddau yn cysgu yn sownd # dyma
bed go to \sleep well once was.3SG the \two(m) PROG sleep ADV firm here's
of the bed going to sleep. Well once the two were sleeping soundly, here's

llyffant bach yn neidio allan o 'r jar ar flaen ei draed yn dawel dawel dawel ## <oh> #
frog little PROG jump out from the jar on \front his \feet ADV \quiet \quiet \quiet
little frog jumping out of the jar in front of his feet very very quietly. <Oh> ,

bore drannoeth # yr haul yn llifo drwy 'r ffenestri # dyma 'r bachgen bach a
morning \next.day the sun PROG flow through the windows here's the boy little and
the next morning, the sun flowing through the windows, here's the little boy and

'r ci yn dihuono <oh> a gweld y jar yn wag # ble mae 'r llyffant wedi
the dog PROG wake and see the jar PRED \empty where is.3SG the frog PRF
the dog waking up <oh> and see the jar empty, 'where has the frog

mynd tybed ## mae e wedi diflannu meddan nhw ## wel dyma nhw 'n chwilio ac
go I.wonder is.3SG he PRF disappear said.3PL they well here's they PROG search and
gone I wonder. He has disappeared' they said. Well here they are searching and

yn chwilio ym mhobman # dan y dillad # yn y jar a hwn yn wag # dan y
PROG search in \ everywhere under the clothes in the jar and this PRED \empty under the
searching everywhere, under the clothes, in the jar and this empty, under the

gwely # chwilio ym mhobman ond dim sôn dim sôn o-gwbl am y llyffant bach
 bed search in\ \everywhere but NEG mention NEG mention at.all about the frog little
 bed, searching everywhere but no sign no sign at all of the little frog.

mae 'n chwilio y tu fas o 'r ffenest ac yn galw llyffant bach llyffant bach
 is.3SG PROG search the side\out of the window and PROG call frog little frog little
 [He] searches outside the window and calls 'little frog little frog,

ble wyt ti? <oh dear> # <oh> dyma 'r ci yn mynd yn sownd yn y jar mae
 where is.2SG you here's the dog PROG go PRED stuck in the jar is.3SG
 where are you? <oh dear>, <oh> here's the dog going stuck in the jar

'r jar ar ei ben ac yn cwympo mas trwy 'r ffenest ## <bum bum bum bum bum> #
 the jar on his\head and PROG fall out through the window
 the jar is on his head and [he] falls out through the window. <Bum bum bum bum bum>,

lawr i 'r llawr ## <oh> oedd e 'n alreit oedd e 'n iawn ond oedd y
 down to the ground was.3SG he PRED alright was.3SG he PRED okey but was.3SG the
 down to the ground. <Oh> he was okey he was okey but the

jar yn xxx # wedi torri i-gyd ## <oh> w 'i 'n falch bod ti 'n iawn ci bach
 jar in PRF break all is.1SG I PRED\pleased is.COMP you PRED okey dog little
 jar was in xxx, all broken. '<Oh> I'm happy that you are okey little dog'

meddai 'r bachgen bach a hwn yn llyo 'i wyneb i-gyd yn ni 'n ffrindiau da
 said.3SG the boy little and this PROG lick his face all is.1PL we PRED friends good
 said the little boy and this licking all his face 'we're good friends

<dyn ni> # w 'i 'n flin am dorri 'r jar ## mas â nhw mas i 'r ardd #
 is.1PL we is.1SG I PRED\mad about\break the jar out with they out to the\garden(f)
 <aren't we>, I'm upset about breaking the jar.' Out with them out to the garden,

oedd hi 'n ddiwrnod braf yr adar yn canu ## ble wyt ti llyffant bach? ble
 was.3SG she PRED\day fine the birds PROG sing where is.2SG you frog little where
 it was a fine day the birds singing. 'Where are you little frog? where

wyt ti? ## a dyma nhw 'n mynd i 'r coed ac oedd 'na wenyn ar-bwys y coed #
 is.2SG you and here's they PROG go to the trees and was.3SG there\bees near the trees
 are you?' And here they are going to the trees and there were bees near the trees,

cwch gwenyn hongian ar y goeden # tybed oedd y gwenyn yn gwybod ble
 hive bees hang in the\tree(f) I.wonder was.3SG the bees PROG know where
 a beehive hanging on the tree, I wonder did the bees know where

oedd y llyffant bach ## galw lawr mewn twll yn y ddaear # a 'r ci yn hapus
 was.3SG the frog little call down in hole in the\earth(f) and the dog PRED happy
 the little frog was. Calling down in a hole in the ground, and the dog very happy

braf yn gwyllo [/] gwyllo 'r gwenyn i-gyd yn cadw sŵn hymian tu fas ## <ooh> pwyl
 fine PROG watch watch the bees all PROG keep noise hum side\out who
 watching [/] watching all the bees keeping the humming sound outside. <Ooh> who

yw hwn # llygoden fach wedi dod o 'r twll ## na nid fi yw 'r llyffant wel fe fod
 COP this mouse(f) \little PRF come from the hole no NEG I COP the frog well AFF \be.INF
 is this, a little mouse come from the hole. 'No I am not the frog' 'well be

yn ofalus yn nhrwyn beth yw moyn cael gwnninen ar yn nhrwyn meddai 'r bachgen
 PRED \careful my \nose what COP want get \rabbit on my \nose said.3SG the boy
 careful of my nose what is xxx a rabbit on my nose' said the little boy.

bach ## <oh dear> # mae 'r gwenyn yn dod yn rhydd o 'r cwch ac yn
 little is.3SG the bees PROG come PRED free from the hive and PROG
 <Oh dear>, the bees become free of the hive and

chwyrlio o-gwmpas yr awyr ## ble mae pawb wedi mynd? ## a dyma 'r bachgen
 whirl around the air where is.3SG everyone PRF go and here's the boy
 whirl around the air. Where has everybody gone? And here's the little boy

bach yn dringo 'r goeden ac yn edrych tu fewn i 'r goeden mewn i 'r bôn
 little PROG climb the \tree(f) and PROG look side \in to the \tree(f) in to the trunk
 climbing the tree and looking inside the tree into the big trunk

mawr mewn dwll mawr tywyll ## beth sydd fan 'na? # <oh> tylluan # diw diw diw # tylluan
 big in \hole big dark what is.REL \place there owl god god god owl
 in a big dark hole. What is there, <oh> an owl, goodness goodness goodness, a big owl

mawr gwddihw ## <tywi tyhw tywi tyhw> meddai 'r gwddihw a mae 'r bachgen bach
 big owl said.3SG the owl and is.3SG the boy little
 an owl. '<tywi tyhw tywi tyhw>' said the owl and the little boy

yn cwympto lawr o 'r goeden # a 'r gwenyn yn mynd yn wyllt o-gwmpas #
 PROG fall down from the \tree(f) and the bees PROG go ADV \wild around
 falls down from the tree, and the bees go wild around,

<oh> mae 'r gwenyn yn dechrau mynd ar ôl y ci bach a mae 'r ci bach
 is.3SG the bees PROG begin go on track the dog little and is.3SG the dog little
 <oh> the bees start to go after the little dog and the little dog

yn rhedeg a rhedeg a rhedeg nerth ei draed mae rhaid i fi fynd mae
 PROG run and run and run strength his \feet is.3SG necessity to I \go is.3SG
 runs and runs and runs the strength of his feet 'I have to go

rhaid i fi fynd dw i 'n ofn [//] mae ofn 'da fi 'r gwenyn 'ma ## a 'r
 necessity to I \go is.1SG I PROG fear is.3SG fear with I the bees here and the
 I have to go I'm [//] I'm afraid of these bees.' And the

gwddihw yn chwilio am [//] gyda 'r bachgen bach yn chwilio am yr &ll [//] am y
 owl PROG search for with the boy little PROG search for the for the
 owl is searching for [//] with the little boy is searching for the &ll [//] for the

llyffant ## maen nhw 'n mynd i ben y graig fawr # mae rhybeth tu ôl y
frog is.3PL they PROG go to \head the \rock(f) \big is.3SG something side track the
frog. They go to the top of a big rock, there is something behind the

graig hefyd ## ble yt ti llyffant bach ble yt ti mae 'r bachgen bach
\rock(f) also where is.2SG you frog little where is.2SG you is.3SG the boy little
rock too. 'Where are you little frog where are you' the little boy

yn galw ## ci bach yn chwilio # tylluan yn gwylio # ond dim sôn am y
PROG call dog little PROG search owl PROG watch but NEG mention about the
calls. Little dog searches, owl watches, but no sign of the

llyffant # <oh> # beth sy fan hyn ## wel wel wel # <o dear> <droi <off> ar munud #
frog what is.REL \place here well well well turn on minute
frog, <oh>, what is here. Well well well, <oh dear> <turn <off> for a minute,

dw i 'm cofio beth yw enw hwn> ### wel wel wel dyna fi wedi cael yng
is.1SG I NEG remember what COP name that well well well here's I PRF get my
I don't remember what the name for that is.> Well well well there I am

nghodi yn yr awyr ar ben y carw ac o-'n i 'n chwilio chwilio am llyffant
\raise in the air on \head the stag and was-1SG I PROG search search for frog
raised in the air on the stag's head and I was searching searching for a frog

mae [/] dyma beth ges i ond reid ar gefn y carw ## a mae 'r carw ar ei [/] ar ei
is.3SG here's what \got.1SG I but ride on \back the stag and is.3SG the stag on his on his
there's [/] here's what I got but a ride on the back of the stag. And the stag on his [/]

ôl i [/] ar ôl mynd ac yn mynd ac yn mynd â fi ar ben y carw a
track to on track go and PROG go and PROG go with I on \head the stag and
after him [/] after going and going and going with me on top of the stag and

[/] bachgen bach ar ben y carw yn rhedeg fel y gwynt # <oh dear> ## mae 'r carw
boy little on \head the stag PROG run like the wind is.3SG the stag
[/] little boy on top of the stag running like the wind, <oh dear>. The stag

wedi gollwng y bachgen bach dros ochr y dibyn a 'r ci wedi mynd hefyd # wel
PRF drop the boy little over side the precipice and the dog PRF go also well
has dropped the little boy over the side of the precipice and the dog has gone too, well

wel wel # dyna beth oedd antur fawr ## ac nawr maen nhw 'n lawr yn y
well well there's what was.3SG adventure \big and now is.3PL they PRED down in the
well well, that's what was a big adventure. And now they are down in the

[/] yn y goedwig mae 'r goedwig yn dywyll a 'r goedwig yn unig ble mae
in the \forest(f) is.3SG the \forest(f) PRED \dark and the \forest(f) PRED lonely where is.3SG
[/] in the forest the forest is dark and the forest is lonely where is

'r bachgen bach # ble mae 'r carw # a ble mae 'r ci # a ble mae 'r
the boy little where is.3SG the stag and where is.3SG the dog and where is.3SG the
the little boy, where is the stag, and where is the dog, and there is the

llyffant <oh> <splash> # dyma nhw yn y dŵr # ac yn hwylio i-ffwrdd yn y dŵr
 frog here's they in the water and PROG sail away in the water
 frog <oh> <splash>, here they are in the water, and sailing away in the water

<oh> maen nhw alreit maen nhw 'n eitha hapus # maen nhw 'n ddiogel # mae 'r
 is.3PL they alright is.3PL they PRED quite happy is.3PL they PRED \safe is.3SG the
 <oh> they are okay they are quite happy, they are safe, the

ci a bachgen bach yn mynd lawr i 'r afon # <sh sh> meddai 'r bachgen bach wrth
 dog and boy little PROG go down to the river said.3SG the boy little at
 dog and little boy go down to the river, '<sh sh>' said the little boy to

y ci # beth yn y boncyff mawr yma? # fallai bod y llyffant mewn [/] tu fewn i
 the dig what in the trunk big here maybe is.COMP the frog in side \in to
 the dog, 'what [is] in this big trunk?', maybe the frog is in [/] in side

hwn ## a dyma nhw 'n chwilio tu ôl ac yn chwilio tu ôl # at ei xxx # a
 this and here's they PROG search side track and PROG look side track to his and
 this.' And here they are searching behind and searching behind, to his xxx, and

beth ffeindi-on nhw ochr arall ond y ddau lyffant yn hapus hapus braf nid un llyffant
 what found-3PL they side other but the \two(m) \frog PRED happy happy fine NEG one frog
 what did they find on the other side but the two frogs very happy happy not one frog

ond dau lyffant # ac oedd y llyffant oedd yn y cartre wedi dod-o-hyd-i ffrind
 but two \frog and was.3SG the frog was.3SG in the home PRF find friend
 but two frogs, and the frog was who was in the home has found a friend

a dyna ddiwedd y stori ## <oh> teulu bach tu ôl # mae rhagor i gael # a dyma
 and there's \end the story family little side track is.3SG more to \get and here's
 and there's the end of the story. <Oh> a little family behind, there's more, and here

nhw mynd â 'r bachgen bach a 'r ci i gwrdd â 'u teulu i-gyd # teulu o
 they go with the boy little and the dog to \meet with their family all family of
 they take the little boy and the dog to meet all their family, family of

lyfantod yn hapus i-gyd # <oh> diolch yn fawr am ffeindio 'n ffrind i meddai 'r
 frogs PRED happy all thanks ADV \big for find my friend I said.3SG the
 frogs [are] all happy, '<oh> thanks a lot for finding my friend' said the

bachgen bach # a dyma 'r llyffant bach yn penderfynu fynd i fynd adre gyda 'r
 boy little and here's the frog little PROG decide \go to \go homeward with the
 the little boy, and here's the little frog deciding he is going to go home with the

ci a ffwrdd â nhw # hwyl fawr hwyl fawr a diolch am eich cwmni ## ac
 dog and away with them bye \big bye \big and thanks for your company and
 dog and away with them, 'goodbye goodbye and thanks for your company.' And

oedd yna un llyffant bach ar ôl
was.3SG there one frog little on track
there was one little frog behind.

uh@fp oedd y bachgen a 'i gi wedi dala 'r broga a wedi rhoi fe gadw mewn
 was.3SG the boy and his \dog PRF catch the frog and PRF put he \keep in
 Uh@fp the boy and his dog had caught the frog and put him to keep in

jar wydr fawr oedd y nos wedi dod ac oedd y um@fp uh@fp gwisgo ar-gyfer
 jar(f) \glass \big was.3SG the night PRF come and was.3SG the wear for
 a big glass jar the night had come and the [boy] dressed for

y gwely ond cyn neud hynny uh@fp penderfynnodd o 'weud nos da i-ddo fe ##
 the bed but before do that decided-3PL he say night good to-him he
 bed but before doing that uh@fp he decided to say good night to him.

tra bod y ci a 'r bachgen yn cysgu um@fp welodd y broga gyfle i uh@fp [/
 while is.COMP the dog and the boy PROG sleep \saw-3SG the frog \chance to
 While the dog and the boy were sleeping um@fp the frog saw a chance to uh@fp

i diengyd o 'r jar &s felly yn araf bach ac yn dawel iawn dyma fe 'n cropian
 to escape from the jar so ADV slow little and ADV \quiet very here's he PROG crawl
 [/] to escape from the jar &s so very slowly and very quietly here's him crawling

mas o 'r jar tra bod y ddau arall yn cysgu 'n sownd # erbyn y bore #
 out from the jar while is.COMP the \two(m) other PROG sleep ADV sound by the morning
 out of the jar while the other two are sleeping soundly, in the morning,

ddihunodd y bachgen a 'i gi e a gweld bod y jar yn wag a 'r [/] y
 \woke-3SG the boy and his \dog he and see is.COMP the jar PRED \empty and the the
 the boy and his dog woke up and see that the jar is empty and the [/] the

ffenest tipyn-bach ar agor # roedd e wedi cael uh@fp [//] gaeth e sioc fawr #
 window little-bit on open was.3SG he PRF get \got.3SG he shock \big
 window a little bit open, he had got uh@fp [//] he got a big shock,

felly dyma fe 'n uh@fp codi o 'r gwely a uh@fp gwisgo ei ddillad yn uh@fp gyflym
 so here's he PROG rise from the bed and wear his \clothes ADV \fast
 so here he is uh@fp rising from bed and uh@fp dressing in his clothes uh@fp very quickly

iawn tra bod y ci yn chwilio yn y jar i weld um@fp le oedd y broga
 very while is.COMP the dog PROG look in the jar to \see where was.3SG the frog
 while the dog looks in the jar to see um@fp where the frog

wedi mynd # trio cael uh@fp gwynt y broga # um@fp yn anffodus aeth y jar yn
 PRF go try get smell the frog ADV unfortunate went.3SG the jar PRED
 had gone, trying to get uh@fp the smell of the frog, um@fp unfortunately the jar went

sownd ar ben y ci # um@fp ac yn y cyfamser # agorodd y bachgen y ffenest
 sound on \head the dog and in the meantime opened-3SG the boy the window
 stuck on the the dog's head, um@fp and in the meantime, the boy opened the window

a gweiddi mas um@fp ar y broga # ble wyt ti # oedd y ci um@fp yn uh@fp
 and shout out on the frog where is.2SG you was.3SG the dog PROG
 and shouts out um@fp for the frog, 'where are you,' the dog was um@fp uh@fp

[//] wedi xxx mas o 'r ffenest a cwmpo i-lawr uh@fp i 'r llawr uh@fp oedd
 PRF out from the window and fall down to the ground was.3SG
 [//] had xxx out of the window and fallen down uh@fp to the ground uh@fp

y bachgen yn edrych yn uh@fp boenus iawn # a dyma 'r ci yn uh@fp glanio
 the boy PROG look PRED \worried very and here's the dog PROG land
 the boy was looking uh@fp very worried, and here's the dog uh@fp landing

ar y llawr uuh@fp mae 'r jar yn torri yn ddarnau mân a mae 'r uh@fp bachgen
 on the ground is.3SG the jar PROG break in \pieces fine and is.3SG the boy
 on the ground uuh@fp the jar breaks in little pieces and the uh@fp boy

yn dod mas drwy 'r ffenest a rhoi uh@fp [//] rhoi cwch i 'r ci ond &ma uh@fp
 PROG come out through the window and put put hug to the dog but
 comes out through the window and puts uh@fp [//] puts a hug to the dog but &ma uh@fp

mae 'n edrych yn grac hefyd wrth y ci mae 'r ci yn llyo y bachgen #
 is.3SG PROG look PRED \angry also at the dog is.3SG the dog PROG lick the boy
 he looks angry also with the dog the dog licks the boy,

i 'u ddangos bod e 'n iawn # felly aeth uh@fp y ddau mas o 'r dŷ um@fp yn
 to his \show is.COMP he PRED okay so went.3SG the \two(m) out from the \house(m) in
 to show him that he's okay, so the two uh@fp went out of the house um@fp in

yr [//] yn yr ardd i chwilio am y broga # uh@fp oedd y [//] y bachgen yn gweiddi
 the in the \garden(f) to search for the frog was.3SG the the boy PROG shout
 the [//] in the garden to search for the frog, uh@fp the [//] the boy was shouting

ym mhobman a 'r ci yn uh@fp defnyddio ei drwyn i gael uh@fp gwynt y broga ##
 in \everywhere and the dog PROG use his \nose to \get smell the frog
 everywhere and the dog was uh@fp using his nose to get uh@fp the smell of the frog.

um@fp ffeindi-on nhw ddim-byd yn yr ardd felly # uh@fp aeth-on nhw i 'r goedwig
 found-3PL they \nothing in the \garden(f) so went-3PL they to the \forest(f)
 Um@fp they found nothing in the garden so, uh@fp they went to the forest

i chwilio yn ddyfn-ach am y broga uum@fp edrych-odd y bachgen i-lawr twll [//] twll
 to search in \deep-er for the frog looked-3SG the boy down hole hole
 to search deeper for the frog uum@fp he boy looked down a hole [//] a rabbits'

cwningod fel oedd e 'n meddwl i weld a oedd y broga yn cwato yn y twll
 rabbits like was.3SG he PROG think to \see if was.3SG the frog PROG hide in the hole
 hole like he was thinking to see whether the frog hiding in the hole.

a 'r uh@fp [//] aeth y ci i um@fp [//] i goeden le oedd um@fp nyth cacwn
 and the went.3SG the dog to to \tree where was.3SG nest wasps
 And the uh@fp [//] the dog went to um@fp [//] to a tree where there was um@fp a wasps' nest

yn hongian ## uh@fp gaeth y bachgen um@fp sioc achos dim broga 'na cwningen
 PROG hang \got.3SG the boy shock because NEG frog there rabbit
 hanging. Uh@fp the boy got um@fp a shock because [there was] no frog there [it was] a rabbit

oedd yn byw yn uh@fp [/] yn y twll ond rhyw-fath o rhywbeth fel um@fp uh@fp
 was.3SG PROG live in in the hole but some-sort of something like
 who was living in uh@fp [/] in the hole but somesort of something like um@fp uh@fp

llygoden fawr ond ddim llygoden fawr oedd e um@fp # rhywbeth fel um@fp <prairie dog>
 mouse(f) \big but NEG mouse(f) \big was.3SG he something like
 a rat but it was not a rat, um@fp something like um@fp, a <prairie dog>

neu rhywbeth fel 'ny uh@fp a mae 'r ci yn mynd yn wyllt uh@fp ac yn
 or something like that and is.3SG the dog PROG go PRED \wild and PROG
 or something like that uh@fp and the dog goes wild uh@fp and

dechrau uh@fp [/] ac yn hyrddu y cacwn um@fp wrth fod e 'n um@fp uh@fp uh@fp
 begin and PROG hurl the wasps as \is.COMP he PROG
 starts uh@fp and [/] hurls the wasps um@fp as he's um@fp uh@fp uh@fp

cyfarth ## uh@fp yn y diwedd um@fp oedd y ci wedi siglo 'r goeden a gymaint xxx
 bark in the end was.3SG the dog PRF shake the \tree(f) and \so.many
 barking. Uh@fp in the end um@fp the dog had shaken the tree and so many xxx

nyth wedi cwympo i 'r llawr a daeth y uh@fp uh@fp [/] y &cwning [/] y cacwn mas
 nest PRF fall to the ground and came.3SG the the the wasps out
 nest had fallen to the ground and the uh@fp uh@fp [/] the &cwning [/] the wasps came out

yn grac grac iawn ## yn y cyfamser aeth y bachgen yn uh@fp ddyfn-ach yn
 PRED \angry \angry very in the meantime went.3SG the boy PRED \deep-er in
 very very angry. In the meantime the boy went uh@fp deeper in

y goedwig a ffeindi-odd e goeden fawr hen hen iawn um@fp a twll yn ei chanol
 the \forest(f) and found-3SG he \tree(f) \big old old very and hole in her \center
 the forest and he found a very very old big tree um@fp and a hole in the middle of

hi uh@fp felly benderfyn-odd e ddringo 'r goeden ac edrych i mewn yn y twll
 she so \decided-3SG he \climb the \tree(f) and look to in in the hole
 it uh@fp so he decided to climb the tree and look into the hole

i weld a oedd y broga yn cwato ond nage gwddihw oedd yn byw yn
 to \see whether was.3SG the frog PROG hide but no owl was.3SG PROG live in
 to see whether the frog was hiding but no it was an owl living in

y [/] yn y goeden a mae 'r uh@fp [/] daeth y gwddihw mas yn grac hefyd achos
 the in the \tree(f) and is.3SG the came.3SG the owl out PRED \angry also because
 the [/] in the tree and the uh@fp [/] the owl came out angry too because

um@fp bod hi 'n trio cysgu yn y dydd # ar yr un pryd uh@fp ddaeth haid o
is.COMP she PROG try sleep in the day on the one time \came.3SG swarm of
um@fp she was trying to sleep in the day, at the same time uh@fp a swarm of

&wen [/] o [/] o gacwn heibio hefyd y cacwn oedd y ci bach wedi um@fp uh@fp
of of \wasps past also the wasps was.3SG the dog little PRF
&wen [/] of [/] of wasps came past also the wasps that the little dog had um@fp uh@fp

[/] wedi neud yn grac ## felly gwymp-odd y bachgen i-lawr o 'r brigyn ar y llawr
PRF do PRED \angry so \fell-3SG the boy down from the branch on the ground
[/] had made angry. So the boy fell down from the branch on the ground

ac # uh@fp rhed-odd y ci bach yn gyflym iawn heibio um@fp achos bod y cacwn
and ran-3SG the dog little ADV \fast very past because is.COMP the wasps
and, uh@fp the little dog ran very quickly past um@fp because the wasps were

yn dal i chaso fe ## um@fp oedd y gwddihw yn grac hefyd um@fp felly
PROG continue to chase he was.3SG the owl PRED \angry also so
still chasing him. Um@fp the owl was angry too um@fp so

oedd rhaid i 'r bachgen uh@fp rhedeg a rhed-odd e hyd at um@fp uuh@fp carreg
was.3SG necessity to the boy run and ran-3SG he length to rock(f)
the boy had to uh@fp run and he ran to um@fp uuh@fp a big

fawr # uh@fp tu ôl i 'r carreg uh@fp oedd uh@fp beth oedd e 'n uh@fp meddwl
\big side track to the rock(f) was.3SG what was.3SG he PROG think
rock, uh@fp behind the rock uh@fp there was uh@fp what he thought uh@fp

oedd brigau uh@fp [/] brigau coeden fach ond # felly # dring-odd e i ben y garreg
was.3SG twigs twigs tree(f) \little but so climbed-3SG he to \head the \rock(f)
were twigs uh@fp [/] little tree twiga but, so, he climbed to the top of the rock

i weiddi yn uchel am y broga # ond ffeindi-odd e taw carw oedd tu ôl
to \shout ADV high for the frog but found-3SG he is.COMP stag was.3SG side track
to shout loudly for the frog, but he found that it was a stag behind

i 'r garreg um@fp ac uh@fp oedd y carw ddim yn hapus ei hunan # uh@fp ac
to the \rock(f) and was.3SG the stag NEG PRED happy his self and
the rock um@fp and uh@fp the stag wasn't happy himself, uh@fp and

uh@fp wedi codi 'r uh@fp y bachgen bach uh@fp ar ei ben â 'i gyrn e # a dechrau
PRF raise the the boy little on his \head with his \horns he and begin
uh@fp had raised the uh@fp the little boy uh@fp on his head with his horns, and begins

rhedeg bant um@fp uh@fp gyda 'r bachgen bach ar ei ben e a 'r ci bach yn <chas>-o
run off with the boy little on his \head he and the dog little PROG -INF
to run off um@fp uh@fp with the little boy on his head and the little dog chasing

a cyfarth # uum@fp ond oedd y carw um@fp fallai yn [/] ddim yn gallu [/] gallu
and bark but was.3SG the stag maybe PROG NEG PROG able able
and barking, uum@fp the stag was um@fp maybe [/] not able [/] able

gweld yn glur um@fp uh@fp oedd e 'n rhedeg tua um@fp cwmpod mawr ## ar y
 see ADV \clear was.3SG he PROG run toward fall big on the
 to see clearly um@fp uh@fp he was running toward um@fp a big fall. At the

funud ola # mae 'r uh@fp uh@fp [/] llwyddodd y carw i stopio ond aeth y ci
 \minute last is.3SG the succeeded-3SG the stag to stop but went.3SG the dog
 last minute, the uh@fp uh@fp [/] the stag succeeded in stopping but the dog

a 'r bachgen dros ben y &ca [/] y carw ac i-lawr uh@fp i mewn i # pwll o ddŵr mae
 and the boy over \head the the stag and down to in to pool of water is.3SG
 and the boy went over the head of the &ca [/] the stag down uh@fo into, a pool of water

'n edrych fel ## uh@fp yng gnhanol y goedwig uh@fp dywyll iawn um@fp oedd
 PROG look like in\ \center the \forest(f) \dark very was.3SG
 [it] looks like. Uh@fp in the middle of the uh@fp very dark forest um@fp there was

neb arall i weld uh@fp yn y llun dim ond uh@fp dŵr a uh@fp coeden a um @fp
 no.one other to \see in the picture NEG but water and tree and
 no one else to see uh@fp in the picture only uh@fp water and uh@fp a tree and um@fp

pethau eraill yn tyfu # <ah> reit cyrrhaeddodd y bachgen uh@fp uh@fp y pwll a
 things other PROG grow right arrived-3SG the boy the pool and
 other things growing, <ah> right the boy arrived at uh@fp uh@fp the pool and

gyda <splash> uh@fp fawr # um@fp a 'r ci ar y bachgen ## uh@fp oedd um@fp y
 with \big and the dog on the boy was.3SG the
 with a uh@fp big <splash>, um@fp and the dog on the boy. Uh@fp the um@fp

dŵr ddim yn ddwfn iawn uh@fp felly uh@fp feindi-odd y bachgen hunan yn saff
 water NEG PRED \deep very so found-3SG the boy self PRED safe
 water wasn't very deep uh@fp so uh@fp the boy found himself safe

a [/] ac edrych-odd e rownd y pwll i weld beth uh@fp oedd yn byw uh@fp yn-ddo
 and and looked-3SG he around the pool to \see what was.3SG PROG live in-it
 and [/] and he looked around the pool to see what uh@fp was living uh@fp in it,

fe # uh@fp wel-odd e tu ôl i hen um@fp goeden wedi cwmpo lawr wedi pydru
 he saw-3SG he side track to old \tree PRF fall down PRF rot
 uh@fp he saw behind a uh@fp old fallen down tree rotten

uh@fp oedd e 'n meddwl fallai bod y broga tu ôl # felly mae e 'n gweud
 was.3SG he PROG think maybe is.COMP the frog side track so is.3SG he PROG say
 uh@fp he thought maybe the frog was behind, so he tells

wrth y ci am gadw 'n dawel dawel iawn # ac mae 'r ci a 'r bachgen yn araf
 to the dog about \keep PRED \quiet \quiet very and is.3SG the dog and the boy ADV slow
 the dog to keep very very quiet, and the dog and the boy slowly

edrych dros y goeden a# ffeindio dau froga um@fp # ei froga e a fallai um@fp gwraig
 look over the \tree and find two \frog his \frog he and maybe wife
 look over the tree and, find two frogs um@fp, his frog and maybe um@fp the wife

neu rywbeth y [/] y broga a wedi cwato yn y pren oedd teulu bach o brogaed
 or something the the frog and PRF hide in the wood was.3SG family little of frogs
 or something of the [/] the frog and hidden in the wood was a little family of frogs

hefyd # felly oedd y bachgen yn hapus iawn a 'r ci yn edrych yn syn i
 also so was.3SG the boy PRED happy very and the dog PROG look PRED amazed to
 also, so he boy was very happy and the dog looking amazed to

weld sut gymaint o frogaed yn yr un uh@fp fan # mae un o [/] o 'r frogaed yn
 \see how \so.many of \frogs in the one \place is.3SG one of of the \frogs PROG
 see how many frogs in the same uh@fp place, one of [/] of the frogs

dewis mynd gyda 'r uh@fp bachgen 'n ôl i dŷ e um@fp ac uh@fp droi-odd y
 choose go with the boy in track to \house he and \turned-3SG the
 chooses to go with the uh@fp boy back to his house um@fp and uh@fp the boy

bachgen uh@fp o-gwmpas i ddweud ffarwel wrth y teulu o frogaed # uh@fp oedd
 boy around to \say goodbye to the family of \frogs was.3SG
 turned uh@fp around to say goodbye to the family of frogs, uh@fp

y ci yn edrych yn hapus iawn uh@fp bod nhw wedi uh@fp llwyddo i ffeindio
 the dog PROG look PRED happy very is.COMP they PRF succeed to find
 the dog looked very happy uh@fp that they had uh@fp succeeded in finding

y broga unwaith eto ar ôl antur hir ## ac mae 'r brogaed i-gyd yn eistedd
 the frog once again on track adventure long and is.3SG the frogs all PROG sit
 the frog once again after a long adventure. And all the frogs sit

ar ben y [/] yr hen goeden i weld y bachgen a ci yn gadael ond mae un broga
 on \head the the old \tree to \see the boy and dog PROG leave but is.3SG one frog
 on top of the [/] the old tree to see the boy and dog leave but one little frog

bach ar y gwaelod sy 'n fallai rhy fach i ddringo lan i eistedd gyda 'r [/] gyda
 little on the bottom is.REL PRED maybe too \little to \climb up to sit with the with
 on the bottom who is maybe too little to climb up to sit with the [/] with

gweddill y teulu mae 'n edrych bach yn drist ac yn gofyn am help ## y
 remainder the family is.3SG PROG look little PRED \sad and PROG ask for help the
 the rest of the family [he] looks a little sad and asks for help. The

diwedd
 end
 end.

Transcription Abbreviations

In the line of sample text and in glosses:

- # pause - each ‘#’ indicates, roughly, a length of one second. (# is translated as a comma, ‘##’, ‘###’, or more, as a period.)
All pauses are considered utterance boundaries.
- @fp filled pause (um@fp, uh@fp, etc.)
- & fragment or false start (“... &p rhan o’r teulu ...”)
- [/] retracing (“mae e’n [/] mae e’n ...”)
- [//] retracing with correction (“mae e’n [//] mae hi’n ...”)
- [] incomplete or missing text (“...idd[i] hi...” (not indicated if the abbreviated form is common and easily recognized in baseline speech as well, in which case an apostrophe marks the elision)
in the translation line, indicates something implied but missing in the text
- xxx unintelligible speech, muttering, etc.
in the line of glosses, also indicates nonsense Welsh (e.g. “rhodog” for “rhedeg”)
- < > fillers (<chimod>, <dw i’n credu>)
placeholders (“<fe> sy’n dweud, y bachgen”)
English codeswitches (“mae fe’n <trying to hold it>”)
animal noises or other sound effects
names or place-names that need no translation
- [%] comments by the translator
- separates segmentable morphemes of a single word (e.g. *cwymmp-odd*)
connects compound prepositions (single gloss for two morphemes, e.g. *o-gwbl* ‘at all’)
- () interjections from the interviewer are set off in parentheses within the text
- ? indicates hesitation or questioning intonation in the recording

In the line of glosses only:

- \ marks initial mutations (e.g. ‘his \head’ under *ei ben*)
(there is no indication of a failure to mutate when it would have been grammatically motivated. These glosses are not a complete grammatical analysis.)
- AFF pre-verbal affirmative particle
- PST past - indicates past tense on a verb when the metalanguage gloss does not indicate that itself
- (m) male gender (Gender is only marked in the gloss when a mutation has, or should have, occurred.)
- (f) female gender (Gender is only marked in the gloss when a mutation has, or should have, occurred.)
- Q indicates that the form of the verb used is a question or yes/no form (forms of *bod* only)
(otherwise following Leipzig Glossing Rules)

The translation is an English rendering as close to the Welsh text as possible. It does not capture all the grammatical deviations which may be in the (especially heritage) Welsh, but wherever it was possible to indicate irregularity, I have done my best to show it in the English translation.

Variations in pronunciation are not indicated in these transcriptions.

In some instances, the speaker's intended meaning is not entirely clear. What I have written are my best conjectures.

The comments by the interviewer which are not intelligible in these transcriptions - (xxx) - are excluded from the speaker's time.